

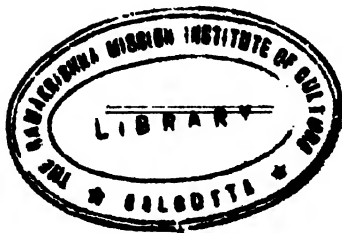
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CONTENTS.

	PAGE
I.—WHAT DOES THE MIND CONSTRUCT? THE PRESIDENTIAL ADDRESS. By A. D. LINDSAY	1
II.—WHAT IS A SOCIETY? By H. C. DOWDALL	20
III.—PROFESSOR ALEXANDER'S NOTION OF SPACE-TIME. By J. A. SMITH	41
IV.—SCIENCE AND PHILOSOPHY. By L. J. RUSSELL	61
V.—THE DYNAMIC ASPECT OF NATURE. By G. DAWES HICKS	77
VI.—PICKWICKIAN SENSES. By W. O. BRIGSTOCKE	107
VII.—VALUES AND TEMPORAL EXPERIENCE. By G. H. LANGLEY	119
VIII.—THE NATURE OF CONSCIOUSNESS FROM THE PSYCHOLOGICAL POINT OF VIEW. By JAMES DREVER	139
IX.—THE NATURE AND AIMS OF A PHILOSOPHY OF HISTORY. By R. G. COLLINGWOOD	151
X.—THE THEORY OF THE STATE. By J. H. HARLEY	175
XI.—ÆSTHETIC KNOWLEDGE. By P. LEON	199
XII.—THE RELATION OF PEDAGOGY TO PHILOSOPHY. By Dr. JESSIE WHITE	209
XIII.—DUNS SCOTUS AND HIS RELATION TO THOMAS AQUINAS. By C. R. S. HARRIS	219
XIV.—THE NATURE OF IDEAS. By J. LAIRD	247
XV.—SYMPOSIUM: THE SUBJECT-OBJECT RELATION IN THE HISTORICAL JUDGMENT:	
1. By A. H. HANNAY	267
2. By H. WILDON CARR	276
3. By T. P. NUNN	282
XVI.—SOME AMBIGUITIES IN THE RETRIBUTIVE THEORY OF PUNISHMENT. By W. H. MOBERLY	289
XVII.—UNIVERSALS AND PROFESSOR WHITEHEAD'S THEORY OF OBJECTS. By L. SUSAN STEBBING	305
ABSTRACT OF THE MINUTES FOR THE FORTY-SIXTH SESSION... ..	331
JOINT SESSION AT BALLIOL COLLEGE, OXFORD, JULY 24TH-27TH, 1925	334
IN MEMORIAM: JAMES WARD... ..	336
COUNCIL AND MEMBERS FOR THE FORTY-SEVENTH SESSION, 1925-1926	341

PAPERS READ BEFORE THE SOCIETY.

1924-1925.

*Meeting of the Aristotelian Society at 21, Gower Street, London,
W.C.1, on November 3rd, 1924, at 8 p.m.*

1.—WHAT DOES THE MIND CONSTRUCT ?

THE PRESIDENTIAL ADDRESS.

By A. D. LINDSAY.

THERE are few phrases used in philosophy which have given rise to so many difficulties and yet seem so indispensable as that of mental construction. Time and again philosophers, impressed with the fact that in knowing we are faced with a reality which we not only do not make, but which our knowing does not alter, have tried to describe knowing as a process in which the mind is passive while things are active, or in which the mind's activity is at most one of pure contemplation or awareness, creating or effecting nothing except changes in itself, and time and again this attempt has broken down. For it has been impossible to ignore the fact that at least in error we are confronted with something which we have ourselves brought into being.

No one perhaps has tried more consistently than Professor Alexander to show that there are no traces of mental activity in objects, to represent knowledge as a relation in which the

mind leaves things as it finds them ; and yet he is driven, when he comes to explain illusions, into ascribing extraordinary powers to the mind. "The mind interferes with the world of things and disarranges it." So far as I can make out from his account of what happens when a grey piece of paper is seen green against a red ground, he thinks that the mind selects from the world of reality an individual green sensum and transfers it "from its place in the world into a place to which it does not belong." This cannot really mean that the mind rummages about the universe until it finds a patch of green of the exact size wanted and then planks it down on the patch of grey ; but, if it does not mean that, what does it mean ? The words suggest handling and moving about, as do these other expressions, "The world of illusions is the same as what we call the real world, but dislocated, its parts taken from their proper places and referred amiss. That dislocation is the mind's own work," and again, "The mind does not create, but only re-arranges what is already there." No doubt these words, "arranging," "re-arranging," "dislocating," "transferring"—which are properly applied to what we do with our hands to physical objects—are here metaphors ; but what makes Professor Alexander use these particular metaphors, and what are they metaphors for ? If they are to be taken as they stand, we must suppose that, besides our power of moving things about with our bodies, we can also move them about with our minds ; and the paradoxical implication of the argument that when we know we do nothing to objects, seems to be that when we make mistakes and are thoroughly stupid we perform feats in the world of reality which would stagger a Mahatma.

Observe that the difficulty, whether for realist or idealist, is not with the conception of mental activity, but with that of mental construction. Professor Alexander's account of the

relation of mind and its objects does not produce the startling paradox I have noticed, so long as he can think of the mind as actively causing its own changes, *i.e.*, as attending and, by means of an activity confined to and not passing beyond itself, being aware now of one thing, now of another. Similarly, many modern idealists, such as Bosanquet and Jones, for example, are insistent in repudiating Berkeley. They do not hold that in knowing we make or bring into being the object which we know. Both schools would also hold that mental activity involved bodily activity in so far at least as it involved the senses. The difficulty arises because both schools, especially but not exclusively when faced with the facts of error and illusion, seem forced to talk of the mind, not simply in terms of doing, but also in terms of making. The puzzle about mental construction is that there are things which we want to call mental constructs. Professor Alexander, for example, cannot call an illusion an "ing"; it is contemplated. Being contemplated, it is for him physical and outside the body. Hence arises the extraordinary language about the mind "dislocating" or "re-arranging" reality. He says no doubt "The mind does not create but only re-arranges what is already there." But that, after all, is all that we do when we make things in the ordinary way. He is forced into using this paradoxical language because of the fact that in illusion at least there is something which we contemplate which is arranged as it is because of the activity of the mind.

The notion of mental construction plays a larger part in idealist thought because modern idealism has concerned itself especially with judgment. Once you consider the nature of judgment as compared with immediate awareness, it is clear that you cannot describe the activity of the mind in knowing simply in terms of synopsis. You have to use the word synthesis, and

mean it. Once you consider distinctions of truth and falsehood, however much you start with considering that true and false are most properly adjectives of the mind's apprehending or judging or appreciating—and that seems to be the presupposition of the coherence theory of truth—you have also to admit that judging involves judgments and that judgments must be capable of being contemplated and understood. It is curious how modern idealists, for all their repudiation of subjectivism, are continually relapsing into it. The reason is, I think, that because they make judgment the typical act of knowledge, they identify knowing and synthesizing, and therefore the objects of knowledge must for them be something which the mind can manipulate, and such objects they find most easily in images.

I propose in this paper to see how far the facts can be met on the supposition that the process of acquiring knowledge involves making or constructing of the same general nature as what we ordinarily call making or constructing—the bringing about of re-arrangements in the physical world by means of our control over our bodies—with the corollary that the assumption of a special kind of mental constructing or making is as unnecessary as it is unmeaning. I do not mean to suggest that knowing and constructing are the same; on the contrary, I think that they are essentially different; but that just as a construction—say of a railway bridge—involves knowing which is subsidiary to it, but is of the same general nature as the knowing which is pursued for its own sake, so a process of knowing involves constructing which is subsidiary to the knowing, but is of the same general nature as the constructing which is pursued for its own sake. This is, of course, obviously true of laboratory experiments; it is equally clear that we can get very little way in knowing without the use of symbols, and that normally means making noises or marks on paper. I want to consider the

function of such constructions in knowledge and to ask whether this obviously physical constructing or re-arranging is not the type of all so-called mental constructing : in short, whether a construction is mental, not in virtue of being worked in mental stuff, but as being constructed to serve the purposes of knowing.

As I said at the beginning of this paper, one of the reasons behind the attack on mental construction which is characteristic of realism is the conviction that in knowing we are faced with a reality which we not only do not make, but which our knowing does not alter. With that conviction I am entirely in accord. I should put the point which seems essential by saying that making alters both the maker and what is made, but knowing alters the knower but not what is known. Knowing leaves no mark on its object. So far from its being the most important fact about things that they are known, as some idealists have maintained, it is not a fact about *them* at all.

If this is true, the making or constructing which is done in the service of knowledge must, on the one hand, both alter the maker and what is made, and, on the other hand, if it is to be of service to knowing, it must not alter what is known. What is made, therefore, and what is known by the aid of that making must be different. The construct is neither the knower nor his object. It is a *tertium quid*. The relationship between what is made to serve knowing and what by the aid of that constructing is known, may be of two kinds. The construct and the object may be two separate things—the map and the country—or they may be an aspect of the object and the object as a whole. Where the physical change which is to serve the purpose of knowing is a change in the object known, it must be a change whose results can be discounted. The term constructing applies naturally, of course, only to the case where the new thing brought

into being and the object are different things, but the general fact is true of both cases, that the change we produce and the object are not identical.

If in the meantime we may ignore this difference in relation—we shall come back to it—we may say of all this constructing or causing of physical changes in the service of knowing, (1) that its purpose is to enable us to apprehend not the changes it effects, nor what it constructs, but those particular elements in reality which we are concerned with the aid of such changes or constructions to understand; although what we construct and what with the aid of our construction we apprehend are both real. We do not make a map to understand the map, but to understand the country, although the map and the country are equally real.

(2) That it is conditioned throughout by the fact that there are some parts of reality, notably our bodies, over which we have much control and can easily vary according to our purposes and other elements over which we have either partial or no control and cannot so vary; that it is therefore incompatible with the doctrine of a "block universe."

(3) That what we construct and what with the aid of the construction we come to understand, because equally real, are in the same way apprehensible. Our apprehension of the noises or marks on paper we call words is of precisely the same kind as our apprehension of the things to which the words refer. We make the collection of symbols because in them the relations which we are studying are more easily apprehensible, but they are apprehended in the symbols and in the things in the same way. Looking at a game of cricket and looking at a diagram of dots with occasional numbers and W's interspersed in it, are precisely the same kind of looking. It would require a mind of prodigiously synoptic grasp to tell a bowler's analysis by simply watching

the game. For the purposes of this knowledge, therefore, we construct, not a copy of the game, but a diagram which contains in an easily apprehensible form just those elements which we want to study. The construct must have some elements of identity with the object of knowledge, but it cannot be identical with it. If it were, it would be as useless as Sylvie and Bruno's map which was to be of the same size as the country.

The necessity of a *tertium quid* between the knower and his objects has been continually recognized in the history of philosophy and yet continually abandoned because of its difficulties. Any inquiry into the nature of truth and falsehood must recognize that we make judgments which are true or false ; that these are facts or events as much as the facts or events to which they refer ; that we can both apprehend the judgment and these latter facts or events. For we can know what a judgment means without knowing whether it is true or false and to determine the latter question we go to a study of the reality to which the judgments refer.

These are the considerations which have led to the correspondence theory of truth. But the theory has continually broken down because it has been assumed that this *tertium quid* must have an intermediary metaphysical existence between the knower and the object. That has produced the well-known difficulty which has troubled the theory from Locke onwards. If ideas—what the mind is aware of when it thinks—are different from objects, how can the mind know both ideas and objects ? When the upholders of the theory tried to show what corresponds with what, they got into difficulties. For they assumed throughout that the things of which we can be aware are either mental and controllable by the mind or physical objects not so controllable. If they held on to the fact that judgments are made, they concluded that the objects of which we are aware are ideas and lost all hold on any other reality of whose corre-

spondence with the ideas we could be aware ; if, like Mr. Russell in his essay on the Nature of Truth, they were more concerned with the objectivity of the judgment, they held on to the reality independent of the mind at the expense of losing any creation of the mind to correspond with it. The position was one in which either dualism or monism was equally unsatisfactory. Dualism preserved the distinction between what was true and the reality to which it was referred ; but it was a distinction which was of no use because only one side of it was apprehensible. Monism had either to say that reality consists of objects independent of the mind and find no place in reality for mental activity ; or to say that being aware of things and making them were the same and make reality consist of ideas. There is nothing to choose in this regard between extreme realism and extreme idealism. They both fail to give any account of judgment because they have no room for a *tertium quid*. Their favourite question "Are the objects of knowledge mental or physical ?" when answered in either sense leaves the main problem of judgment unsolved.

If now we consider first the nature and limitations of such constructions which are made to serve the purposes of knowledge and are yet clearly physical, we can then go on more profitably to examine the more difficult instances-- images and ideas.

Let us therefore start with a map. A map is clearly of the same stuff of reality as the country it represents. It is perceived in the same way. Though a *tertium quid* between the knower and the object of knowledge, it has not got an intermediary metaphysical existence. We study it not for its own sake but for the sake of the country, and it is for the sake of our knowledge of the country that it has come into being. It is in that sense, like all the instruments of knowledge, epiphenomenal.

menal. It is not a copy of the country and it is not meant to be such. Like all mental constructs it has to serve two masters. Some of its nature is dictated by the nature and purposes of the knower, some by the object. It cannot be described as either the creation of the mind or the self-revelation of the object. The principles of its construction, its scale, its system of contouring, its material, are chosen because they serve the purposes of the knower; because we can out of paper, &c., construct something which will give us a synoptic view of those relations in the country we want to study and something which we can carry about and manipulate. But the details expressed in these principles of construction are dictated by the country. The map is of use only to those who in the first place recognize it as something which tells them about something else and who also understand the principles of its construction and can therefore read it. The correspondence between the map and the country, if the map is correct, is not and cannot be a complete correspondence. It is a correspondence within the limits laid down by the purposes of the map and can only be understood in terms of the principles of the map's construction. To read the map we must learn when we see an inch on the map to expect a mile in the country, when we see differences in colour to expect differences of height, when we see a wavy black line to expect a river. These depend on choice, on the fact that we have fixed on that scale and those symbols. But the map is correct and is not only a record for the purposes of memory, but something from which we can learn facts about the country which neither we nor anyone else have observed, because between the very different terms of black line, green and brown, round black dot on the one hand and a river, differences of height and a village on the other, and within the differences of inch scale and real size, there are identical relations. The relations are identical, but they can

be observed more easily on the map, and because of that the map serves the purposes of knowledge.

There is no difference of principle between the use of a map or a mechanical model and the use of symbols, whether words or mathematical symbols. These mental constructs are made of physical stuff. They are ordinarily made of different stuff from the objects which they represent because they must be made of stuff which we can manipulate. If we forget that, as Kant said (though this is not what Kant is ordinarily supposed to have meant by the remark), "reason has insight into that only which she herself produces according to her own plan," and "attribute to the figure anything beyond what necessarily follows from what we have ourselves placed into it in accordance with the concept," we shall be mistaking one reality—the construct—for another, the reality which it represents. This is true of models and of symbols and of words, and also, as we shall see, of images. When we say that some things are only mental constructs, we do not mean that they are more *in the mind* (whatever that means) than other things, but that they have been brought into being for the purposes of knowing and bear the limitations of their purpose upon them. In order to use or interpret any of them rightly we have to know the principles of their construction and what by means of these principles we manage to represent, and not to mistake the one for the other. In all such construction there is an element of choice and selection which has been made one way and might have been made in another, certain rules of the game, and yet by means of such constructs we represent and are enabled to understand realities which we have had no hand in constructing. All symbols have this mixture of the subjective and the objective about them, show at one and the same time the stamp of reality and the stamp of the knower, and sometimes these two aspects are not

easy to distinguish. Everyone knows what an important part has been played in the advance of knowledge by the happy invention of the right kind of symbols for the different tasks with which knowledge has been faced and how the characteristics of the symbols used have affected thinking. There are always things which can be said in one language and not in another, and it is largely true that what cannot be said in a language cannot be thought by the people who use that language only. Every observer of children (to take a very different example) must have noticed how many of the jolly and sometimes profound remarks of children arise simply from the pleasure they take in making fresh combinations of their newly found words. It is the words, as it were, and not the children who do the thinking.

This view of the nature of mental constructs is, of course, taken straight from Plato. In the *Sophist*, Plato makes the possibility of error depend on the existence of images and on the possibility of making images. In the simile of the line in the sixth book of the *Republic* he makes it the essence of scientific thought that it looks at images thinking of what the images represent. Plato's treatment of judgment is inspired throughout by the conviction that in judgment what we are aware of and what we are thinking about are not the same, and that yet both must be things of which we can be aware.

Maps then and collections of symbols are things which are true or false : they are as much part of the physical world as the things they represent ; yet they owe their being to the purposes of knowledge and so may be called mental constructs. Are all mental constructs of this kind or are those produced by the constructive imagination peculiarly and exclusively mental ?

This question involves an examination of the nature of images and that of the nature of *sensa*, and that is a task far too great

to discuss adequately at the close of a paper. But I think it is of value to examine the nature of *sensa* and images, having in our minds the nature of maps and symbols, knowing, that is, that for something to be made for the purposes of knowledge, it does not need to be of a different world from the objects it represents; remembering that to ask whether a map or a word is mental or physical is a silly question, because it is in a sense both; and that these mental constructs only do their work because they serve two masters and have a foot in both camps. But before examining the nature of *sensa* let us look for a moment at the other class of physical changes which we produce in the world outside our bodies for the purposes of knowing: ordinary rearrangements and combinations of physical things which we make in experimental investigation. These are changes which are brought into being for the purposes of knowing. Like maps and models they are, as we have said, a *tertium quid*, though in a slightly different sense, and, like them also, they are joint results. We are always in the natural sciences studying joint results. We never find any object producing a change just by itself, an isolated cause producing an isolated effect. We are dependent for advance in knowledge on the fact that we can disentangle theoretically the part played by different conditions in a joint result. We can do that because, and in so far as, we can consciously and with awareness of what we are doing, vary some of the conditions without varying the others, and can observe the differences produced in the joint result by such variations. Because we know what we put into the joint result, we can find out what the object puts in, just as, because we know the scale of the map we can know the country from it. Our power of introducing changes into the physical world and knowing that we are doing it is the secret of the construction of experimental investigation.

Now this ordinary and familiar process does surely throw some light on the vexed question of the nature of *sensa*. Much controversy has raged round the question, "Are *sensa* mental or physical?" The question seems to me as irrelevant and indeed as meaningless as the same question applied to objects of knowledge. For it assumes the existence of two self-contained spheres—the sphere of mental entities and the sphere of physical entities, and, because it does that, it omits the essential element in all mental construction—our power of originating and knowing that we originate changes in the physical world: it fails to see that the assumption of free will is as essential for knowledge as it is for conduct.

This can be seen most clearly in Kant just because Kant so nearly got beyond the dualism of two sets of entities—one mental and the other physical. In his treatment of causation he saw that all objective experience depends upon the possibility of distinguishing between succession in apprehension and apprehension of succession. That cannot be explained by treating the one as apprehension of succeeding ideas and the other as the apprehension of succeeding things. When I look, to take his examples, in the one case first at the front of a house and then at the back, and in the other, first at a boat at one point of a stream and then at the same boat further down, in both cases the things I am aware of are the same in kind. If in the first case they are independent realities, they are so in the second case; if some are ideas, all are ideas. When I conclude that the boat is moving, but that the house is not, I do not therefore say that the boat is real and the house is not. But I refer the succession in what I am aware of in the one case to the things and in the other to myself. The objective and the subjective are not two separately seen worlds. They are disentangled out of the same experiences. This disentangling is possible because we

assume both that the same cause has the same effect, and that causes and effects are isolable, or, to put it in another way, because we assume that we know when we move our bodies, and that the effect of moving our bodies on what we see will be the same at one time as at another, and that it can be distinguished from the effects on what we see of the movements of other things. In any moment we are aware of differences which persist through changes in our body, and are therefore not due to these changes and differences, which come and go with our bodily changes and are therefore put down to us. "When I shake my head," said a small girl, "I can make the lamp move." If we went on thinking like that, we could have no objective knowledge; but if the relative position of the lamp and the objects behind did not appear to change when we shook our heads, we should be seriously alarmed. One of the most effective stage directions in Hardy's *Dynasts* is when the spectator is supposed to be looking east at the Grande Armée making its way west from Russia, and does *not* see it getting bigger. Nothing else could so convey the idea of its rapid shrinkage.

I need not pursue the account of how we disentangle what is contributed to the joint result we are aware of by our bodily changes and by changes in the things we are looking at; it has been admirably analysed by Professor Kemp Smith in his recent book. But I wish to emphasize that the possibility of a disentangling process implies that change in our bodies does not change everything else, and that we know when we originate changes in our bodies. According to this account of the distinction between subjective and objective, which is that of Kant at least in the second edition, we know the changes which are due to us as over against the changes which are not due to us, and *vice versa*. We know the physical changes we have not originated because we know the physical changes we have origi-

nated. The assumption of changes originated by the self in phenomena is as much a ground of the possibility of objective experience as the assumption of changes not so originated. There is only one series of phenomena, but their changes are interpreted and necessarily interpreted in two ways. Kant talks as if the problem of freedom, of how there can be changes in the physical world which have their origin in the purposes of the self, is a problem which first arises in moral theory and one whose solution is, superficially at least, inconsistent with the results of his analysis of the presuppositions of knowledge. He gets himself into this position, which in the end lands him in impossible difficulties in regard to moral freedom, because he thinks of our knowledge of the phenomenal self and of external phenomena as knowledge of two separate series of phenomena, the one presented to internal and the other presented to external experience. That Kant should have reached this impossible position is due to the last remnant of the view with which he started that our experiences of time and of space are two separate experiences, a view which is refuted by the transcendental deduction and is in the second edition finally shaken off, except for this one fatal deterministic conclusion.

Professor Alexander (*Time, Space and Deity*, II, p. 199) rejects the view of perception which I have been putting forward, saying that "it is of no use to urge that our appearances are partly determined by the thing and partly by our bodies," on the ground that we should be thus "reduced to a world of consistent hallucination." "For how," he asks, "shall we know what part is due to things except through observation, for which in turn we are dependent in part upon our bodies?" I cannot help thinking that his very cursory rejection of this alternative is due to his assumption that it involves holding that our

intuitions and sensations are mental, i.e., that it involves the difficulties of the old representationism. For, if his objection is generalized, it would make all scientific investigation of change impossible. There is no difference in principle between such scientific investigation and the way in which we disentangle the part played in the production of changes in *sensa* by changes in our bodies. In both cases we begin with observation, with noticing changes in our bodies or in certain conditions and the subsequent variations in the joint result, and then go on to experiment, to observing changes which are brought into being to serve the purposes of knowledge.

So much for the part played in perception by our power of varying *sensa*. The function of the constructive imagination in knowledge is rather more complicated. Here, again, I am content to refer to and accept Professor Kemp Smith's account of the nature of "mental images" (*Prolegomena to an Idealist Theory of Knowledge*, pp. 194-196). "No established psychological results stand in the way of our assuming that images are identical in character with sense perceptions. We may therefore assume that in them, as in perception, *sensa* private to the individual and physiologically conditioned constitute an essential factor. Presumably these *sensa* differ from those supplied in perception chiefly in being proximately initiated not by stimuli acting on the sense organs, but by processes coming from other parts of the brain." I wish only to add that the important part which such images play in our knowledge is largely due to the increased control which by our control over our bodies we have over the production and arrangement of images. This is what we ordinarily mean by mental construction. I quote Professor Alexander's account of fancy because, once what seem to me its ambiguities are cleared up, it serves as an admirable statement of how we use our imagination. "What

fancy does, in fact, is precisely in a speculative way what the mind does in the practical handling of things to create fresh combinations like steam engines. We take material things and re-combine them according to their own laws, which we must obey to suit our purposes. Just so in fancy we are taking from the physical world what we find there, and reconstituting them at our will into fresh combinations. We handle them in thought, though not in practical reality. The result always contains the element of illusion in so far as it is not reproduced in its fancied form anywhere in things. But, in proportion as it is scientific or artistic, it embodies in illusory garment the outlines of things as they are, like a robe which betrays the shape of the limbs. Because all great scientific imagination or artistic creation starts from realities and returns to them again, the discoverers or artists seem to themselves to owe their creations not to themselves but to inspiration from without." I should like to read into that passage, after "in fancy," for "we are taking from the physical world what we find there," "we are reproducing by means of our bodies alone the sensa which were in the first instance the joint results of our bodies and other real objects." I should also add that the work of the fancy is not confined to the making of "mental images"; it is done by the construction of symbols, by drawing, by making models. Some people, no doubt, bring their work of constructive imagination to a completion before they give it outside shape, but for most people the construction of symbols and models and studies is part and parcel of their constructive imagination, all of a piece with their making of mental images. What makes things mental, I am seeking to insist, is the part they play in knowledge, and the way we control and shape them, not the stuff of which they are made. Images, then, are mental constructs of the same kind as models or maps or words. The difference between images

and such things is not that the first are mental and the second physical. Both involve for their existence a body with a mind and objects external to and acting upon that body. The difference is that images, though they could not have come into existence without external objects, can be immediately produced by the action of the en-minded body alone and are, therefore, more under the control of the mind. It is because they are so under the control of the mind and can be arranged and reproduced that the constructive imagination plays such an important part in knowledge. But such imagination—the construction by means of our psychophysical organism of images we can be aware of and contemplate is not for logical purposes different from the construction of what Plato would have called images in the external world, maps, models, arrangements of symbols on paper or in succession of sounds. Wherever there is anything of which we can ask whether it is true or false, there is mental construct of this kind, something made by the help of our body, something of which we can be aware in the same kind of way as we can be aware of the reality to which it refers, and to which, if true, it corresponds.

*Meeting of the Aristotelian Society at 21, Gower Street, London,
W.C. 1, on November 10th, 1924, at 8 p.m.*

II.—WHAT IS A SOCIETY ?

By H. C. DOWDALL.

WHAT is a Society ? The form of this question, though unfashionable, is piously reminiscent of τὸ τί ἦν εἶναι and of Aristotle ; but the reason for its adoption is due to the hospitality of philosophers who in these days not only welcome intruders from every quarter into their domain but also allow to each his peculiar avenue of approach. Now it cannot be denied that a hardly pressed advocate is sometimes put to his shifts, but a lawyer *as such* desires above all things to define so far as possible the terms that he employs. He may have learnt that the conception of stability is better illustrated by a ship standing upon its course than by a pyramid standing upon its base ; that every event is in one sense unique ; that facts are complicated, that orchestrated music cannot adequately be rendered upon the flute, and so forth ; but he knows from experience—indeed it follows from all this—that “ the rule of law ” is only rendered possible by abstracting what is relevant from what is irrelevant to the particular matter in hand. This must not, however, be done too soon. Facts must be widely explored before the issues are determined, and the summing up comes at the end of the case. On the other hand the task of definition must not be left until it is too late ; for words in use may acquire conflicting technical senses which are highly inconvenient. Let me give an illustration. Everyone who has to do with commercial law knows that the same most accomplished and experienced parliamentary draftsman

drafted the Sale of Goods Act, 1893, and the Marine Insurance Act, 1906 ; but the usage of trade made it impossible for him to escape from deliberately using the word " warranty " in one of those Acts in a sense not merely different but contradictory to the sense in which it had been defined in the other. This illustration also emphasizes the importance of somewhat laboriously investigating the past history and current use of a word before adopting it in a technical sense ; for words come to us charged with meanings which may not be consciously appreciated but which cannot be eradicated.

I contend that the time has come when it is urgently important to consider the appropriate meaning for the word *society* in the science of analytical sociology. Mr. Ramsay MacDonald is by no means alone in the opinion that that science is destined to be the great science of the immediate future ; and in addition to the wealth of material that meets us in the street at every turn, there is such a vast and daily increasing store of co-ordinated information and statistics that I have difficulty in understanding what the late Dr. Rivers meant when he complained that the material was insufficient. But it seems almost impossible that the science can find its feet until there is some agreement as to the meaning of its central term, which indeed defines its subject-matter. There is also a growing practice among recent writers for each to define for the purposes of his own treatment the particular sense in which he uses the term *society* and such closely related terms as *community*, *association*, and *institution* ; and until the meaning of such terms has been agreed upon, or dictated by some writer of commanding authority, this practice, however inconvenient it may be, is perhaps inevitable ; but it is evidence that the matter is ripe for discussion in order to find out whether some agreement is not possible. As a basis for discussion this evening I propose to refer to the history of the word *society* and

of the other three words which are so closely connected with it, and to suggest definitions for consideration.

SOCIETY.

Socius derives from the same root as *sequor* and the Italian *socii* were the followers of Rome. Indeed psychology seems to prove, what Sir Henry Maine and Pomponius before him asserted, that the earliest form of intelligent government lies in the following of a recognized leader ; for personal initiative is always necessary in order to meet new and shifting emergencies. But with the growth of institutions, which provide for recurring occasions and restrict the scope and conditions of personal direction, such direction becomes less conspicuous and relatively less important, so that the idea of following is lost in that of alliance. At any rate *socius*, as we meet it in classical Latin, means merely an ally or partner and *societas* an alliance or partnership ; but the latter word was also applied (perhaps at first in connexion with revenue farming) to the body of partners or allies, and this ambiguity in that and kindred words, which runs right down from Cicero to the present time, is apt to occasion looseness of thought, though it is sometimes really useful.

In Roman law *societas* is the regular word for a business partnership and this use is specially important owing to the continuous operation of Roman law. Ducange gives illustrations of its application to forms of partnership characteristic of the middle ages ; to a *société en commandite* for the grazing of cattle ; to the community of goods in a monastery ; to the *illustrissima societas comitum* : and, from the fourteenth century, to the trade guilds and the *compagnia* or *militarium turma*. There may, perhaps, be a contrast here between a military companionship under its own official leader and a body of soldiers hired by a

11933

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condottiere ; at any rate the earliest illustration given in the Oxford English Dictionary of the use of the word society for a body of men is in reference to the Knights of the Garter, and the Society of Jesus was the name of a military order before it was adopted by the Jesuits ; but it is unnecessary to inquire whether the religious orders took over the word from the military or *vice versa*. I think that the establishment by that name of our own Royal Society in 1661 is the earliest application of the word to an Academy—an application which soon became common in England and Germany though not in France until later. In Germany *Societät* is of course a loan word, and the definition of it given and illustrated by Zedler in 1743 well shows the range of meaning which the corresponding French and English words also had at that time. “Die Gemeinschaft, Gesellschaft, Mascopen, Compagnie, Communität, der Bund, die Bundsgenossenschaft, die Gespanschaft, die Zunfft, u.s.w. wird insgemein eine jede Gesellschaft von Menschen genannt, die sich an einem Orte, oder zu einem Zwecke, zusammen halten.” Reserving for subsequent consideration the sense of *Gemeinschaft* (which is etymologically and in every other way cognate with Community), our daily speech testifies that the range of the word Society has not diminished ; and if sociology is the study of group life in all its forms—that is to say of the psychological implications of group life as such—the word society would be very appropriate to describe any and every group which co-operates to any end, whether that end is general or specific, mediate or final, firmly grasped or only vaguely apprehended, whether the organization is simple or elaborate, whether the members are few or many and whether they live together or are widely dispersed. This would also conform with the views of the editor of the Dictionary of Philosophy and Psychology, who out of the six definitions of the word society there given prefers “A social group characterized

by some degree of reflective and voluntary co-operation"—a group being elsewhere defined as "Any specific collection of individuals considered as preserving concrete relationships." And it would still further conform with the most general use of the word *Gesellschaft* which is used in German sociology as equivalent to society, though its original meaning would perhaps be more closely allied to the French *compagnie* or the Swedish *Bolag*.

In a very recent treatment of the subject in the *Erinnerungsgabe für Max Weber* (1923) Prof. Kantorowicz identifies *Gesellschaften* in the widest sense with all relations of reciprocal activity whether slight and transitory or permanent and comprehensive. *Beziehungen von Menschen die ihr Handeln wechselseitig aufeinander einstellen . . . von einer Gruppe zweier Menschen, die einander anblicken, bis zum Völkerbund oder zu der katholischen Kirche.* He further calls Spann to witness that this is the thoroughly predominant use in the sociology of all countries and that the following writers concur in it—Comte, Tarde, de Greef ; Spencer, Mill, Giddings ; Schaffle, Dilthey, von Mayr, Tönnies, Rümelin, Simmel, Vierkandt, Eulenburg, Jellinek, Münsterberg ; Ratzenhofer ; Eleutheropoulos ; and Kistiakosky. I have not been able to get sight of the passage in Spann to which he refers, but I do not doubt that each of the writers cited uses *Gesellschaft* or the corresponding word in senses conformable to the definition, which is also in line with that given by Eisler (s.v. *Soziologie*).

Professor Kantorowicz proceeds to deal with the antithesis of *Gesellschaft* and *Gemeinschaft*, which will be most conveniently discussed later on in this paper ; and he concludes by referring to the use of "die" *Gesellschaft in der Einzahl, die alle anderen Gesellschaften als Ganzheit in sich fasst.* This is Hegel's *bürgerliche Gesellschaft* and is co-extensive with all departments of civilisation (*gleichzeitig mit allen Seiten der Kultur*) which operate within it, so that its membership supplies them with theirs. It is represented

to-day by a nation united under a sovereign government (*staatlich geeinte Volk*). This use of the word society cannot possibly be ignored as competing for technical adoption with that already suggested, for it has been so employed by great writers in all countries and it may be the case that the very word sociology is due to it.

For when Rousseau wished to exhibit the social implications and possibilities of a nation State he found the word ready to his hand. *Societas* and kindred words had been used from Cicero downwards for fellowship in the abstract. And the contract of partnership was itself consensual, *Consensu contrahitur societas et nihil refert utrum consensus verbis vel factis exprimatur*. The canon law too tells us that *Societas requirit concordium morum, alias animorum*, and refers to the *societas quae cum Deo nobis esse debet*. In the time of Rousseau the conception of the State as a kind of partnership, a civil society or *Société civile*, was of course already an old one ; what he did was to use a legal phrase *Contrat social* but to evacuate it of its legal meaning and substitute the metaphysical and biological conceptions of the *volonté generale* and the *moi commun*. He thus produced a *personne publique* which Hegel identified with the State and which came to be regarded as "Society" *par excellence*. This "society" was the main topic of interest towards the middle of the nineteenth century when the words socialism and sociology came into use. The reason why people did not then talk of State socialism was because no one thought of any other kind of socialism, so that the phrase would then have been redundant. But at the present time, when people are, and are likely to continue to be, interested in all manner of societies, there is no sufficient reason to restrict the application of the word society as a technical term in sociology to the very special sense in which some great writers of the past have used it. Dr. Bosanquet at least, who himself often used

the word in this special sense, had no desire that it should be so restricted, for alluding to an essay in which it was applied to a most brief and casual combination, he wrote, "I welcome the extension of the idea of society to momentary partnerships."

For the above reasons the definition of a society which I would submit for discussion is as follows. A society is an interrelation of human action which is intended to be complementary, or a number of men regarded as standing to one another in that relation. The points of this definition to which attention is directed are as follows.

First, the relation is one of activity. It seems to me that the importance to serviceable analytical sociology of the Aristotelian distinction between potentiality and act demands explicit recognition. It is true that the distinction between the State as active and the State as passive—between the *état politique* and the *état civil*, the *Souverain* and the *Etat*—has been observed by Gravina and Montesquieu and Rousseau, but none of them pursue or develop the point. And it is also true that Nietzsche has discriminated the purely cultural side of a *Kultur* in the wider sense, that is to say, a *Kultur* in the narrower sense, from a *Zivilisation*, meaning thereby the regularly organized institutions in which it finds partial expression; and I gather that on this is based Tönnies's now firmly established contrast between a *Gemeinschaft* and a *Gesellschaft*, which in the view of Max Weber has received a psychological significance. But I cannot remember to have ever come across any allusion to the following point, which seems to me to be of the most fundamental and far-reaching importance. It is admitted that everyone belongs to many societies; and unless the word society is used in the unique and comprehensive sense which has just been abandoned, it is obvious that this must be so. It is also admitted that attention is, in the words of Professor Ward, a "limited quantity." But the

sociological significance of the inference appears to have been overlooked. For it follows that when and so long as a man is active in one society he thereby becomes a kind of sleeping partner in every other society to which he may happen to belong. Of course there are in this connexion, as in every other, transitions and complications, complications of sentiment, mixed objectives, and so forth ; but it is useless to press distinctions to the point at which all distinctions dissolve into a unity, and if one desires an analysis which shall be relevant to conduct, I think that every lawyer would agree that an attitude of activity is different from an attitude of mere disposition. If this is so, it still remains to justify the use of the word society as connoting activity. Now if anyone peruses the article in the Oxford English Dictionary or reads a newspaper or engages in conversation it cannot be denied that the word society is sometimes used, especially without the article, to denote a general sense of fellowship, but in the vast preponderance of cases the word as commonly used intends an active co-operation. And if one turns to technical books the case is far stronger. Baldwin and Stout's Dictionary, as has already been noticed, refers to "co-operation." The Germans speak of *Handlung* or *Wirkung*. Such writers as Professors Bosanquet, Graham Wallas, Muirhead and Hetherington do not, if I remember rightly, give formal definitions, but the sequence of English writers, to whom reference was made at the beginning of this paper, though they do not agree in their definitions, yet all of them imply activity in their use of the word society. For Professor MacIver (1917) explains what he means by "willed relationships," Mr. Cole (1920) speaks of "a complex of organized institutions," Mr. Ginsberg (1921) of "associational structure," and Professor Hobhouse (1924) of relations "durable and defined."

Secondly, the social relation is complementary. The importance of the psychology of the crowd is considerable, for when

people get together and become silly and excited (which may happen even at a committee meeting) serious consequences may ensue ; but such exceptional circumstances are no longer regarded as a possible basis for social psychology, and Dr. Bosanquet among others has shown that it is not homogeneous conduct but complementary conduct which characterizes any valuable and permanent social structure. Such figures, however, as that of a screw working in its groove, and such illustrations as a school assembled for instruction or an army for war, obscure, if they do not overlook, the very important fact that social duties are not only different but not necessarily synchronous. He who writes a paper for the Aristotelian Society does so while the other members are otherwise employed, and so does the Secretary when he summons the meeting. It is clear that the occasions which elicit from the various members of a society their various appropriate tasks are themselves often various for each member and intermittent.

Thirdly, each member must intend to co-operate, but nothing is said as to the motive for his intention to do so. I use the word intention in the sense in which lawyers in fact use it, as correlative to act ; an act being a number of activities, often intermittent and extending over a long time, which derive their unity and significance from the intention in which they cohere. What is regarded as an act in one connexion, *e.g.*, making a statement (itself a very complicated process) may be only part of an act in another, *e.g.*, obtaining goods by false pretences. It all depends upon the matter under discussion. I am of course aware that many people, expressly or impliedly, introduce the question of motive into their conception of a society and require an identity of motive in the members. Thus in considering an army as a society they would, I suppose, exclude from membership all those who are motivated by pay or personal ambition or fear of court-martial

and so forth. The inconvenience of this course seems to me to be prohibitive ; but the question of motive is one of such paramount importance in regard to social efficiency that it should be marked by appropriate terms and I have elsewhere suggested that members might be described as " fellow members " in so far as they are moved to co-operate by a desire to accomplish the social end, and " subject members " in so far as they are moved by collateral considerations.

Fourthly.—It is suggested that the subject-matter of sociology exists wherever there is found a relation or group of men coming within the terms of the above definition. There is sometimes a tendency to concentrate attention upon such important societies as the State, Trade Unions, Urban District Councils and the like, or at all events upon societies of some size and permanence, and to ignore those ephemeral relationships which in the aggregate bulk so largely and with such significance in our individual and social lives. But it is obvious that biology could not proceed if it ignored every creature less obtrusive than an elephant, a horse or a mule.

Lastly. In the various applications of sociology various considerations will be of importance, and definitions will, I suppose, have to be adopted in order to emphasize them. It would, moreover, be convenient if these definitions belonging to applied sociology were co-ordinated. Thus lawyers have in their books such rubrics as Municipal Corporations, Local Government, Public Health, Friendly Societies, Building Societies, Literary Societies, Trade Unions, Companies, and so forth, though it must be confessed that they do not even try to make a pattern of them. But for the purposes of analytical sociology it would seem that whatever definition is given to its central term the other key words should be related to its implications. Now if society is adopted as the central term, and if it is defined somewhat as has been done above,

the following implications are involved. First, there must exist in each member a certain mental disposition by reason of which the appropriate social occasion will elicit in him an intention to perform his social task, and these dispositions must themselves stand related to one another so as to form a system, for which I shall suggest that the word *community* would be suitable. Secondly, the act to which the intention is directed may be determined by the dictation of some authorized officer of the society upon occasion as it arises, or it may be predetermined by institution providing for a type of occasion whenever it may arise.

COMMUNITY.

In classical Latin the word *communitas* occurs chiefly in the philosophical writings of Cicero and more particularly in the *De Officiis* which, owing to the vogue of that book in the sixteenth century when the modern use arises, may be specially important. It is there treated together with *cognitio* and *magnanimitas* and *moderatio* as one of the four parts of *honestas* and used, as Mr. Holden observes, subjectively for the spirit of feeling of *communitas* *ritue*, social virtue, social instinct, fellow feeling. When, in the same book, Cicero speaks of *Rerum divinarum et humanarum scientia, in qua continetur decorum et hominum communitas et societas inter ipsos*, he clearly has in mind the Stoic conception which Professor Gilbert Murray describes as "the one great city of gods and men." and, unless the words *communitas* and *societas* are tautologous or to be assigned to gods and men respectively, which is not likely, they might very well be referred to the elements of corporate life which are merely dispositional on the one hand and to the active and organized elements on the other. In late Latin *communitas* is sometimes used for a *commune*, equivalent and cognate to *Gemeinde*, and having a concrete significance either as the *commune* itself or its taxes or its privileges. But

the political character of a commune gave to the English word community, as used for instance by Wyclif, and to the French word *communauté*, a certain democratic character and an implication of the common good, so that when the Ciceronian abstract use was revived at the renaissance it naturally carried with it the old sense of fellowship. And this reacted on its concrete application so that in eighteenth century English it is used for a neighbourhood, as distinct from a *commune*; and in the nineteenth century we find such phrases as "the commercial community" or "the Jewish community."

Baldwin and Stout equate the word with the French *communauté* and observe that it is "used loosely" as more or less equivalent to the German *Gemeinde* or the Italian *comunita* on the one hand and to the German *Gemeinschaft* or the Italian *communza* on the other. 111933

It has already been observed that *Gemeinschaft* has for many years been used in antithesis to *Gesellschaft*, the one being illustrated by an agricultural community or by a people who inherit and speak the same language and the other by a trading company or a philological society. The general nature of the contrast is easily understood and it has been subjected to analysis by Professor Baldwin in America and by many writers in Germany. It is also frequently referred to by English writers. But no analysis so far as I know has reached logical precision or been generally adopted. The relationships in the one case are said to be *Lebensbeziehungen* and to be determined by the nature of the will itself (*durch Wesenwille*) and in the other to be *Zweckbeziehungen*, voluntarily determined (*durch Willkür*). The one is also said to be organic or innate and the other artificial or mechanical. Professor MacIver compares the word community with *Gemeinschaft* and gives to it a kind of technical meaning as "any area of common life, village, or town, or district, or country,

or even wider area," thus including any territorial *Gemeinschaft* whatever its intensity or extent. Mr. Cole uses the word in much the same sense but within any territorial implication; it is enough for him if there is a certain "social comprehensiveness," so that the community is "in a certain sense self-contained and self-subsistent." Mr. Ginsberg on the whole follows Mr. Cole, and Prof. Hobhouse, if I understand him rightly, treats a community as equivalent to society in the special sense in which it is used to include the whole socially organized structure of a nation State. This vagueness and variety of use seems to leave the word open for adoption in a sense agreeable to the general trend of usage but more precisely related to the central term of sociology.

The definition which I would propose for discussion is as follows. A community is a system of mental dispositions distributed through the members of a society by virtue of which each of them is able and willing to perform his appropriate duty in the society when the appropriate occasion arises. The following observations may be added.

First.—By disposition I mean *Anlage* as cultivated by subsequent experience, that is to say, the product of past and the organ of future experience, by means of which the meaning and value of sensations and appetites, imaginations and desires, as well as the most profound thoughts and deliberate purposes are judged. I use the word *Anlage* because Professor Ward uses it and in the sense which he explains. As he does not formally define the word disposition I can only found my own definition upon a careful study of his work.

Secondly.—Although every society must have its dispositional basis, the dispositions which support it are not exhausted in any one society but are available for an infinite variety of social purposes. A community therefore has a certain generality which a society has not.

Thirdly.—A community persists, whereas a society is only occasionally active. Thus, because the activity of the moment is specifically determined, I would say that a man can be a member of only one society at any one time; whereas, because the dispositions remain whether called into activity or not, he can be a member of any number of communities. And if, on account of their co-existence and equality in this regard, all the communities in which a number of men are involved are treated as a single community, the societies into which action emerges might be regarded as based upon a single communal basis. But I think that such a view is perpetually misleading because there is no group of men between whom there exists a perfection of sympathy and mutual understanding, and on the other hand men of most varied general disposition may have a community of interest and disposition on some particular occasion or in some particular regard.

Fourthly.—A disposition requires an occasion to call it into activity, and it is therefore necessary to the existence of a society that there should be not only an appropriate system of dispositions but also a scheme whereby they are called into ordered action.

INSTITUTION.

Instituere, which preserves its original form and much of its meaning in our word *instate*, is applied by Tacitus to the ordaining of a civic constitution. *Se meminisse temporum, quibus natus sit, quam civitatis formam patres avique instituerint.* *Institutio* is used generally for the act of instituting, and the Ciceronian phrase *institutionem suam servare* suggests the close relationship between an individual habit and a social custom. *Institutum* is the plan or ordinance itself, as when Cicero speaks of success following *ejus omne institutum* and of *Juris publici leges et instituta*, and when

Livy uses the phrase *ex instituto*, meaning according to law and custom. In post classical Latin *institutor* means a founder. *Institutio heredis* is the regular Roman law expression for the appointment of an heir, and it is in connexion with ecclesiastical law, that is to say, in the case of institution to a benefice, that the word first appears in English.

The relevant English usage dates from the renaissance ; it is used from the fifteenth century for " the act of instituting or founding," and the following definitions, taken from the Oxford English Dictionary, are there illustrated by examples taken from the sixteenth century up to the present time. " The giving of form or order to a thing ; system ; constitution." " An established law, custom, usage, practice, organization or other element in the political or social life of a people ; a regulative principle or convention subservient to the needs of an organized community or the general ends of civilization." " Collectively. Something having the fixity or importance of a social institution ; a well established practice or object." These meanings of course still persist and to them must be added, " Establishment, organization, or association established for the promotion of some object," which is illustrated by charitable institutions from the eighteenth century and learned institutions from the nineteenth. Baldwin and Stout treat the word as equivalent to the German *institution*, the French *institution*, and the Italian *istituzione*, and define as " Any established and successful arrangement for carrying out a purpose."

What, then, is the essential character of the word from which its various applications derive ? Dr. Bosanquet has a well known chapter on " Institutions as Ethical Ideas," which may conveniently be used as a basis for discussion. He does not define the word, but I think it would be agreed that the points upon which he insists are as follows. (1) An institution has a

“threefold character ; it is a material fact, and an idea, and a purpose. (2) It “implies a purpose or sentiment of more minds than one and a more or less permanent embodiment of it.” (3) “In institutions we have the ideal substance, which, as a universal structure, is the social, but in the differentiated cases is the individual mind.”

I cannot myself understand how an institution has in any sense the character of a material fact. The institution of private property for instance distinguishes my possession of my watch from the dog's possession of a bone ; but no part of the distinction rests on the difference between the bodies of men and dogs or watches and bones ; the whole of it lies in the difference between the mental dispositions of civilized men and dogs. Of course these dispositions are based upon experience in the physical world, and they will, through the conduct of men, determine events in the physical world, but I cannot see how their own character is in any sense material, unless one adopts a material “mind stuff” theory, which is not what Dr. Bosanquet means. Thus too, in the case of a charitable institution, it is not the buildings or money but the determination of men's conduct in regard to them which alone constitutes the institution. But Dr. Bosanquet, like other writers who assign a partially material character to some or all institutions, does not elaborate or emphasize this aspect, and passes at once to their psychological character as ideas which are also purposes. And here again, although one cannot conceive a purpose without an idea, it is chiefly to the character of the purpose that our attention is directed. An institution “implies a purpose or sentiment of more minds than one, and a more or less permanent embodiment of it.” And the use of the word structure, in the other sentence which has been quoted, implicates the same conception of permanent provision made for experienced or contemplated contingencies. We have only to add the self-

evident proposition, that permanent provision cannot be made for contingencies except in terms of type, in order to be led to the following conclusion which I submit as a definition. An institution is a mental structure determining persons to certain types of conduct in certain types of contingency.

A law, in the lawyer's sense, is a good illustration of an institution and shows how it is general or abstract and requires an act of judgment or recognition in order to determine its concrete application. But, because circumstances vary and are sometimes so complicated in their relevant incidents that they cannot be provided for by type, it is therefore essential to co-operation that the course of action should in such circumstances, or where such provision is not made, be determined by the discretion of some officer authorized to allocate to the various members of the society such specific tasks as will in such circumstances by their conjoint effect achieve the social end. Austin and other writers on analytical jurisprudence though they recognize the existence of "particular commands" wholly fail to appreciate their ineradicable importance. I have discussed the matter somewhat fully elsewhere and have suggested that a direction of conduct by type might be, and in fact is, called a law; and that a direction of conduct by authority on occasion as it arises might well be, and often is, called an order. But for the general purposes of sociology I now suggest for discussion that if the word institution were adopted for the former, the word dictation would be appropriate for the latter. It conveys accurately and immediately the intended meaning, and it has not any embarrassing or conflicting use or history. But whatever words are adopted (and for present purpose I use those suggested), it is of urgent practical importance to observe that dictation is essential in the government of every society, and that every society of any size or permanence is necessarily governed by a combination in various forms and in

various complications of institution and dictation. If the dictatorship is at large it is sometimes called sovereignty (*Souverän ist, wer über den Ausnahmezustand entscheidet*); if it is closely limited and confined by institution it might be called ministerial; but it can never be eradicated, for even a policeman who is ordered to arrest a particular felon must be authorized, it may be within the most severe restrictions, to determine at his discretion (that is to say, by dictation to himself) the manner in which he effects the arrest. The method of government by dictation and of government by institution each has its appropriate advantages and disadvantages, and there is no more urgent matter of social mechanics, whether in the political, industrial, or any other sphere, than to consider dispassionately the scope and balance and interrelation and occasion of each in every relevant circumstance.

ASSOCIATION.

Seven years ago Professor MacIver defined an association as "an organization of social beings (or a body of social beings as organized) for the pursuit of some common interest or interests. It is a determinate social unity built upon common purpose." He instances a trade union, a state and a church. This use of association as connoting organization for a specific end has received the support of Prof. Hobhouse and others, and is moreover consistent with history. For the classical word *consociatio* dropped out of use until it was revived at the renaissance, and *associatio* which only arises in late Latin suggested, as was natural, adherence rather than combination. It comes into English in the sixteenth century as meaning a confederation or league, and with a somewhat sinister intention, "Me seemeth the word association soundeth not well." In the same century it is used for a "document setting forth the common purpose of a number

of persons and signed by them as a pledge to carry it out," a meaning which leads directly to our familiar Memorandum of Association of a limited company. Psychology on the other hand has endowed it with other associations, so that Dr. Bosanquet uses it, in a sense directly contrary to that of Professor MacIver, to signify a casual and unorganized gathering of men with no particular end in view. It has in fact been used for so long and in so many countries with such variety and generality of meaning and its technical use in psychology is so well established that its technical use in sociology is perhaps still open ; but, so far as I can judge, the tendency is to use it in Professor MacIver's sense, and if it were adopted in that sense it would serve a practically useful end. It might for instance be used for a society which has a standing organization or one that has been deliberated and agreed upon. But the enormous practical importance of a more or less permanent or elaborate organization by which duties are assigned to specified offices which may be filled by a succession of individual officers, does not seem to me to give it a place in radical scientific analysis ; and I have therefore omitted the word from the scheme which I have ventured to put forward.

CONCLUSION.

It may be convenient to summarize the conclusions arrived at. A society is an interrelation of human action which is intended to be complementary or a number of men regarded as standing to one another in that relation. It is based upon a community, that is to say, an abiding system of mental dispositions such that each member of the society is disposed to perform his appropriate part of the interrelated action as occasion requires. The occasion and the action which it requires are determined partly by institution, that is to say, by provision made by

type, and partly by dictation, that is to say, by the discretion of an authorized officer of the society dictating upon occasion as it arises.

It will be observed that this kind of conclusion is at least more fashionable than the kind of question to which it is addressed. But the important matter for consideration is whether it emphasizes those distinctions which lie at the root of practical problems, like rocks which when they are submerged imperil navigation, but when they are illuminated guide its course. Of course that is the hope in which the definitions are offered, though space forbids any attempt to justify it here. The utmost possible will be to give one or two illustrations of the actual way in which it is proposed that the words might be used.

If a man is trying to lift a heavy box and a kindly passer-by offers to bear a hand, their united intentions cannot take effect unless one or other of them by word or gesture determines the moment of action. A novelist would not apply to such a determination the same word that he would apply to Quintus Fabius Cunctator levying a legion or ordering its retreat. But it is our business to exclude irrelevant shades of meaning and adopt a single word, and the word which I have suggested is dictation. It is obvious that a kindly disposition is not exhausted by one act but remains available for an infinite variety of occasions. The actual co-operation is social and I should describe the combination, although transitory, as a society. Indeed the whole of life appears to me to consist in the formation and modification and reconstruction and revival and dissolution of an infinite number of societies. No one who desires far-reaching definitions can fairly complain of the length to which they go. Thus again I should describe as a society three thieves who practice hustling, one attracting the attention of the victim, the second pushing him, and the third picking his pocket. In so far as the respective duties have been

schematized the society is governed by institution, but dictation will be necessary to set the scheme going on a particular occasion, and in its detailed execution each member will act as his discretion dictates. These illustrations are given for genetic purposes. In point of disposition so much is a matter of *Anlage*, so much is common to the whole human race and so much more to classes, races and so forth, that one must look for origins in a rather special dispositional grouping such as one of intimacy and sympathy growing up between fellow travellers who resent intrusion, or special systems of dispositions formed in and for the pursuit of special ends.

To discuss the whole realm of England in the light of our distinctions would be interesting, and so far as my capacity goes I have had it in mind all through, but it cannot be done in this place, and only one or two observations are possible.

As the State is a permanent body which survives individuals, provision must be made by institution for the appointment of its governing body. The King is determined by type in a family, and the Home Secretary, present at the birth of every possible claimant, adjudicates upon the conformity of the individual to the type. Some peers inherit a place in the House of Lords on somewhat similar lines, the Committee on Privileges adjudicating upon facts if they are disputed. Other members of the House of Lords are individually appointed, that is to say, by dictation. Electors to the House of Commons are determined by type, and Members of the House of Commons by their dictation. The King appoints the Prime Minister by dictation, but the taxing institutions of the country limit his choice to one who will be accepted as their chairman by a group of men who can control the votes of the House of Commons and who are thereafter appointed Cabinet Ministers by the nominal dictation of the King and the real dictation of the Prime Minister as limited by the aforesaid

exigencies. I must not stop to analyse the complication of dictation, or executive action, and institution, or law and custom, by which action is directed and controlled in politics and industry and all the other spheres of social activity.

Neither is it possible to dilate here upon the identical method by which organized thought and organized action cohere whether in an individual or in a society. It will be enough if some kind of indication has been given of the kind of way in which it is intended that the terms now proposed for discussion should be used.

*Meeting of the Aristotelian Society at 21, Gower Street, London,
W.C. 1, on December 1st, 1924, at 8 p.m.*

III.—PROFESSOR ALEXANDER'S NOTION OF "SPACE-TIME."

By J. A. SMITH.

READING the articles in *Mind*, in which Prof. Broad and Prof. Alexander controvert one another over the principles of the latter's *Metaphysics*, I felt like the Irishman who, finding himself accidentally among the spectators of a prize-fight, eagerly inquired of a bystander, "Is this a private fight, or might a gentleman take a hand?" Unsure of the propriety of offering myself as a participant in a triangular duel, doubtful whether the platform was wide enough to afford me a *locus standi*, I hesitated and took advantage of Prof. Alexander's kindness to submit some questions to him in a private letter. In his reply he invited me to "write a paper," primarily for him, but to be published. I venture, therefore, taking the consent of Prof. Broad for granted, to intrude myself as a late entrant into the friendly controversy.

In what follows here I confine myself to a single topic, viz., Alexander's "notion of S-T," which is, as he says, "central," or, as I might say, "fundamental," to his whole *Metaphysics*. If that basis proves unsound, the whole superstructure confessedly crumbles. In discussing its soundness, I accept (provisionally) the condition which he lays down, viz., that no question be raised as to the theory of knowledge which in his mind accompanies or preceded it, without the *Metaphysics* or theory of being depending in any way upon it. To be faithful to this engagement is for me very hard, but I will do my best to observe it loyally. What, so it appears to me, I can alone on that condition do is to ask myself, not whether "the account of S-T" which Alexander offers is true, but whether it fulfils

the lower or antecedent condition of being intelligible. It is put forward as a hypothesis, by which I understand a basis upon which the structure, which we call the physical sciences, can with untroubled confidence in their stability on the part of their builders, be erected and stand secure. The only question which can be raised is whether the basis is "sound," *i.e.*, whether it can support the superstructures, and to do that it must have, and be shown to have, a certain character which distinguishes it from all other possible or extant rival hypotheses—a character not synonymous with truth. Clearly it must itself hold together : it must be *conceivable*. To drop all figures, and come to the facts, the various statements in which Alexander's account of it is set out must be coherent or consistent, and the exposition of it must exhibit the reciprocal implication or connexion of its distinguished parts. Nor is it enough that the articulated whole so exhibited should possess the kind of unity which belongs to a work of art, the parts of which are merely *felt* to belong together ; it must abide our questions and satisfy our understanding. All this it may do, and yet not be true, for what is true is not only what we can think, but what we must think. It is difficult for me (and not, I think, for me alone) to separate the questions of conceivability and truth, but I can only do my best to keep them for a time apart.

But I must preface my contribution to the discussion with a confession. I cannot resist the feeling that Alexander, more or less unwittingly, takes for granted certain unexpressed assumptions, some of which I do not share, and would on reflection disown or disallow. Behind his exposition I seem to detect, still surviving and working, a "theory of knowledge" from which I dissent, *viz.*, that "knowing" essentially means "being aware of (something other than what is aware of it)," and that it advances or develops simply by description of ever new features which emerge to view in the whole scene as the knower alters his awareness, the only change that takes place in the spectacle

being a disintegration of it with a corresponding change in the knower which may be called "analysing" it. It is as if integration or synthesis was regarded as something which, when or if it takes place, always blurs and obscures, while it renders more interesting or attractive, the fundamental facts to be known (and so hinders the knowing of them). But I do not here press this criticism; only I must not be taken to accept whatever consequences follow from this presupposition.

Another presupposition I must point out, because this time I share it, though since Mr. Bosanquet's last work I do so with somewhat diminished confidence, and now hold it subject to revision. It may be expressed in Alexander's own words (*Mind*, No. 120, p. 417) that "the world [I should say 'the universe'] is essentially a history," that "to be" means "to occur," or that its genuine parts are "events." The formulation of this presupposition, common to Alexander and myself, requires carefully guarded statement, but I leave it as he has put it. It may not be, as I still tend to regard it, a presupposition of all thinking, but it is, I venture to think, an assumption fundamental or necessary to all "science." At any rate it is maintained by Alexander and underlies (I daresay he would not accept this word) his "account of S-T." For the present, I propose to abstain from questioning or canvassing this presupposition.

What, then, is that which Alexander calls "S-T" or "[Pure] Motion"? In response to this inquiry, Alexander develops his account of it. His aim is simply to bring it before us, to open our eyes to it, to help us to "apprehend it immediately." This, he tells me in effect, is difficult to us only because we are "sensitive and not purely intuitive beings." Were we purely intuitive and not also sensitive beings, S-T would stand immediately before us, showing itself as what it is. Our being sensitive, as it were, gives us a bad seat to see the spectacle of it, or makes us squint at it and so distort it, or perhaps miss it altogether.

To remedy this we must endeavour to reduce ourselves to a state or attitude of pure intuition. To see eye to eye with Alexander we with him must undo whatever has been done or has happened in the momentous transition which has converted us from pure intuitors into sensators. The invitation to attempt this remounting of the stream of experience to its sources is a familiar one and is always accompanied with the assurance that so and so alone we shall come face to face with the ultimate (or primary) *datum*. It is a difficult enterprise, and I am not confident that I am capable of coming to an end of it (or even correctly accomplishing the first step in it), but I must not multiply excuses. I repeat that I will do my best to follow the directions given, though I am haunted with the suspicion that in attempting to carry it out I am exercising my imagination and may be constructing a fable or legend, not sober history. The further back I go the less confidence I feel that I am proceeding or retrogressing rightly and so approaching not a self-begotten illusion but the beatific vision of S-T. Still I am pledged to the adventure. Here and now I start, a being now sensitive to, or sentient of, the variegated spectacle or panorama of Nature (the sensible world): as I open my eyes wider or add successively greater "powers" to my metaphysical telescope, first goodness, beauty and truth, then colour, noise, etc., and lastly shapes and sizes dislimn and vanish from the scene, veil after veil that hides S-T from me is lifted, and at last pure motion or S-T alone occupies the stage—a stage nowhere and nowhen "pinnacled dim in the intense inane." So we present to ourselves, or are presented with, Pure Motion, the ultimate object that shows itself before "universal darkness covers all." Or, rather (for Alexander remembers how weak we are and "helps us out"), just before the ultimate self-disclosure of S-T, the visible (or invisible) vault of Being appears embroidered with mathematical patterns, the floor of Heaven thick strewn with "points" (which "are really events, point-instants") ordered in lines and figures, so that,

as it were by an act of condescension, S-T, just before the mystic glory of its full and final self-revelation, wears the last guise of an infinite multiplicity of distinguishable pure motions. But "these rockets are not the Empyrean."

What can the privileged initiate do now but be silent and adore? Here is Isis unveiled, the secret essence or inwardness of Nature, indeed of all Being, made manifest. Alas, at least one unbeliever cannot rid himself of the doubt that what he is thus permitted to behold is "such stuff—as dreams are made of."

But, after all, questions are allowed, and I avail myself of the permission. In fact, asking questions is the one thing we (or minds) can do which S-T cannot; it is, or goes on its way, asking no questions, and "we can *live* in it without question." I should like to dwell a little on this activity of questioning, which is our own and not S-T's, but I will only repeat here what Alexander tells me of it that "when we question we use categories and less universal concepts which imply S-T" (which also supplies them). Still the using is ours—"a poor thing, but our own"—and a right use may be important to us. "S-T is the ultimate"—the last object before Nothing and the Void, and in view of its admitted difficulty it may be permitted to first consider its penultimate, perhaps even its antepenultimate, appearance. Its penultimate appearance is the veil last withdrawn, the last (and thinnest) disguise which S-T wears to us. It is, if I am right, that which confronts us while we still employ the adminicles of mathematical conceptions. So viewed, it is, as I have said above, a spectacle or scene crowded, packed full, of event-particles or point-instants with the finest of threads spun between them (I hasten to add that these "betweens" or relations, which are also "transactions," are themselves spun out of events). The guise or disguise is but a *Loan garment*, betraying what it conceals. Just before it vanishes it differs from what lies behind it merely as a plurality or infinity of

distinguishable pure motions from a singular and total Pure Motion. I cannot, however, help thinking that as it, to borrow a famous phrase, "defecates to a pure transparency," its many motions undergo a certain separate purification, so that each of the many in its distinction from the others had been affected with a certain impurity. This must be still more the case with the motions patent to sense which fill as with arabesques and patches of quality the antepenultimate veil—the motions, I mean, which one beheld along with (primary and secondary) qualities, *i.e.*, with sensible shapes and sizes. I am forced to distinguish three kinds or notions of Motion :

- 1°. Pure motion, or, as I may term it, Alexandrian motion.
- 2°. Pure motions, which I will call mathematical motion ; and
- 3°. Sensible motions, which I should like to call physical motion (but I avoid this designation).

It appears to me that there is no way to bring 1° before me, but to begin with 3° and reach back to 1° through 2°, by two successive acts of purification or what I will call "remotion" (I must not say "abstraction"). The first step in this regress towards pure intuition of (accompanied, so I am promised, with insight into) the primordial datum I believe I can accomplish, about the second and more momentous final step I have much less confidence. For the first I have at least a precedent, indeed many precedents, and my predecessors have formulated directions for its performance (not that I feel sure that I understand all the directions). This adventure, backwards in experience, is a highly philosophical experiment. and I am grateful to Alexander for his suggestion of it. I will pick up such guides and clues as I can to the itinerary, but perhaps I had better consider first the points of departure and arrival. The first is the common experience of sensible motions (together with the vulgar meaning attached to the word). I add the latter because as yet my attitude is not one of pure intuition to my object: in sensing what I sense I call it something, *viz.*, motion, and I

mean something by the name. In my total attitude there is involved or blended an answer to the question *quid est motus*, but the answer is *juxta vulgarem sensum*. Both in the meaning and the *sensum* there are intrusive ingredients not belonging to "pure motion," and at first they are included and confounded with the proper or essential ingredients of it. In fact the one and the other differ from "pure motion" both by excess and defect. For, in the first place, a sensible motion is only one among many, whereas "pure motion" is absolutely single, and again it is itself a many, whereas "pure motion" is absolutely simple, being a singular and seamless whole. Further, the former has a private version of the all-pervasive or categorical characters, while the latter is "not subject to the categories." Again, the former is qualified, while the latter is not. Lastly (I am afraid my enumeration of differences is not exhaustive), the former is "in Space and Time," while the latter is in neither (both being in it). These considerations prescribe some of the steps of my backward journey from the one to the other, and by taking them I can approximate to the vision or notion of Alexandrian motion.

I make my first attempt under the guidance of Prof. Broad. (*Mind*, No. 117, p. 29.) Following a hint of Alexander's, he bids me start with such a sensible motion as a flash of red colour and proceed to "think away" from it the quality of redness. "The residuum" will be (he assures me) "an event-particle," i.e., a case of Alexandrian motion. But I am not sure that Prof. Broad has not started too far ahead, and, again, whether he has reached the goal. For (a) already his "very simple qualified event" is a much altered or attenuated "sensible motion": it has had removed from it (1) (certainly) its irrelevant implicate of a *mobile*, and (2) possibly its directedness, its datedness, its placedness, etc., (3) its difference of velocity (retaining, however, velocity in general); and (b) he has reached only "the *proximately* fundamental thing"—what I have called the penultimate object. Alexander makes a correction here of what he

calls "a slip" on Prof. Broad's part: "swiftness or velocity" is not retained in the ultimate—it is there displaced by its correspondent "intensity." Accepting this correction I now know (*Mind*, No. 120, p. 415) that Alexandrian motion is "an ether chaotic at first and without differences or quality (the one quality is that of being motion), but of intensity and direction." I am somewhat disquieted by some of this language, but I suppose that "at first" means, so to speak, "at last," or when it genuinely shows itself without veil or disguise. My disquietude arises from the negative or privative terms used to characterize its positive being, but I recover hope when I am told that it positively is motion, and that it intrinsically possesses intensity and direction. This promises me some information as to its make up, and I do my best to follow the "exposition" of it, which is a sort of disintegration of it (purely mental, I suppose) succeeded or accompanied by a redintegration of it. There are within it (i) intensity, (ii) direction, and, I think I may venture to add, (iii) Space and (iv) Time. I protest that I am not succumbing to the view that these are— all or any of them—"components" of it: I remember Alexander's warning that all such parts are "unreal by themselves." Still I can only proceed by making, as it were, two compensating errors, one that of dissecting such parts out of its integrity and the other that of joining them together again. Nevertheless, I exert myself to bear in mind that no parts of it are, when severed, what they are in its indiscerptible unity, and are transmuted by a return to their primordial union with one another.

But so, with every precaution and self-reminder, singling them out, I feel no confidence that I understand what the parts are which I have then reached. As regards "intensity," I can but identify it with what I have attempted (very unsatisfactorily) to discuss in *Arist. Soc. Proceedings*, Vol. XX, p. 63.* "Direc-

* To avoid ambiguities, I now name it to myself "tensity" and the cases of it *tensa*.

tion" must, I think, mean what mathematicians call "sense." The other two—I am not placing all four on a level—require so radical a transmutation from their ordinary or even their mathematical meanings that I am not sure that they retain any identity with their namesakes, from which they differ at least in that, while the latter are *continents*, they are *contents* or *contenta*. I can only name them, as before, Alexandrian Space and Time. As all four undergo transmutation in dissolving into the homogeneous ether of S-T, I confine myself to the penultimate stage where they leave the tracks or traces of their presence on the object before us and expose to us its structure or constitution in a sort of subtilized diagram. I put it to Alexander that, if he speaks of S-T, he cannot help attributing to it such a "constitution," though, of course, it is open to him to add that, in speaking of, or "expounding" it, he perhaps unavoidably substitutes a metaphor or figure for the fact. All we can ask of him is that he should speak as unmetaphorically as is possible. I said above that we had in this adventure not only guides, but predecessors, who had explored at least part of the road and had reported progress. Descartes was one of them. Starting *ex vulgi usu*, he believed himself in this matter of motion to have reached the *rei veritas*, to have passed in regard to the question *quid est motus* from the *motus ut vulgo sumitur* to *motus proprie sumptus*. From, we might say, the metaphorical to the proper meaning of motion. He does not tell us how he achieved this (except, I suppose, that he did it by his "method"), but he does set forth both what I have called the point of departure and the point of arrival. Anyway, it was a process by which the "determinate nature" of motion was cleared up and made "scientific." (He confines himself to local motion *neque enim alius sub cogitationem meam cadit*.) It will be of profit here to consider the accounts of the one and the other, the rejected or disused and the substituted accounts. The "vulgar sense" of motion Descartes expresses in the formula (A) *actio qua corpus aliquod*

ex uno loco in alium migrat. Why is this formula—in which I think we can recognize a fair description of “a sensible (local) motion”—not satisfactory? Because, Descartes in effect replies, it contains a covert contradiction, or, perhaps, more than one. In this sense of the word, (a) the same thing may be at once moving and at rest, yet (b) as in every motion there is *ex def.* action, while in rest there is the absence of action, the two—motion and rest—are mutually exclusive.

He, therefore, proposes to substitute for it the following formula: B “*translatiounius partis materiae, sive unius corporis, ex vicinia eorum corporum, quae illud immediata contingunt et tanquam quiescentia spectantur, in viciniam aliorum.*” It is worth while to examine the substitutions in detail.

1°.—By “*actio*” in A, Descartes understands, as one might say, “a being impelled or driven, pushed or pulled.” with the implication that the source of it lies outside what is moved (*movetur*) in something else which moves it, whereas by “*translatio*” he understands a modification or *mode* of the *mobile* itself, whatever that may be, related to it as its shape is to a shaped thing. Motion and rest are, therefore, diverse modes in which a *mobile* exists, and each equally implies the activity or actualization of a force resident in what is moved or (brought to) rest.

2°.—The succeeding phrase, “*unius partis materiae sive unius corporis,*” is explained by Descartes himself. By it he understands “*quod simul transfertur,*” i.e., he conceives the subject of the *translatio* as a multiplicity of parts, themselves *mobilia*, which in virtue of the force resident in them form a whole or “cohere”: it is something more, or at least other, than a mere whole-of-extension. We may perhaps think of it as a determinate field of action of a cohesive force (resisting disintegration by other forces impinging upon it *ab extra*).

3°.—This necessitates our thinking of other “bodies” which have, or are, similar “fields,” which are “neighbourhoods” to

one another. In fact, we must think of the whole of "Nature" as partitioned out into such fields, each distinguishable field having several neighbourhoods "contiguous" to it, *i.e.*, continuous with it. It will be observed that the words "neighbourhood of a body" (*i.e.*, of a cohesive force) are substituted for "place of a body." By this substitution Descartes thinks he gets rid of a troublesome set of ambiguities associated with the word "place." In particular, he thinks the new way of putting it enables, or compels, us to attribute only one motion to each *mobile*.

4°.—The words "*quae . . . tanquam quiescentia spectantur*" might seem to retain or introduce a "subjective" or relative element into the definition of motion. Really, according to Descartes, the contrary is the case. For, if we do not insert this condition, the motion of A in respect of B is simply the reciprocal of the motion of B in respect of A: it could not truly be said that either moved, which would contradict what had preceded. Hence, one of the two must be *really* at rest and the other *really* in motion, and the words must mean that certain bodies must be *recognized* as being at rest. This is clearly necessary, not merely to the reality of absolute motion, but to that of motion altogether.

What Descartes is aiming at is obvious and may be described as the amendment of the ordinary or "vulgar" conception of motion to fit it for scientific use. He wishes to eliminate from it whatever in it is due to imagination or sense, and to render it an object of pure intellection. (The analogy to what Alexander attempts and bids us attempt *saute aux yeux*.) What he offers us is a highly mathematized or super-mathematized definition of motion. (I daresay our Cambridge friends would say a logicized or logical definition.) I confess that, whatever it may be called, the result possesses to me a singular attractiveness—the attractiveness of a greater intelligibility or nearer approach to that, over the "vulgar meaning": it seems to me a great

improvement of an instrument for its designed employment, of high value for scientific purposes.

I do not think, however, that Descartes has pushed the process of amendment or purification quite so far as Alexander, and that he did not intend to do so. For the purpose he had in view was a physical, not a metaphysical, one : he was elaborating a concept to serve as an instrument of cosmology, or for employment in dynamics (including statics). I think he would have admitted, as Alexander would not, that what could be reached in this way required a further transmutation to fit it for a place in a metaphysics. But as this raises a very difficult question about both Descartes's and Alexander's "first principles," I leave it without further comment.

Certainly, what Descartes offers us is an exposition of Pure (or Absolute)* Motion, and till Alexander, I know of no one who has so carefully dealt with the conception. (That, however, may be merely my ignorance.) But neither did Descartes suppose, nor is it true, that the problem had never been described before, though perhaps its full difficulty had not been realized or the necessity of a solution felt to be so pressing.

The problem or task set to us, whether by Nature or ourselves, is one at once difficult and important, and try as we will to evade it, it returns upon us. For myself I should describe it as an eternally or inevitably recurrent problem — one which admits of no *final* solution, but only (I believe) of ever better and better solutions. Though, if this view of it is right, it had no origin in time, it may be well, instructive and helpful to consider its early history, when it presents itself with a certain (perhaps delusive) simplicity.

The (eternally recurrent) situation may be stated as follows : the word *movetur* (*moveri* or *motus*) has *some* meaning when we use it, and that meaning is apprehended or understood. We

* The epithets might be dropped : they add nothing to the conception.

naturally, but possibly unwisely, ask ourselves "What, then, is its meaning?" Now, whatever answer we render to ourselves or find offered to us, proves on even slight reflection unsatisfactory to us, and we embark on the process of improving it (for further use). So long as we do not reflect or question, we do not feel any discomfort, but we *do* reflect and question. Whence arises our dissatisfaction, what are the grounds of our discomfort? The grounds are these: the offered accounts are at best mere descriptions or transcriptions, they stick at the surface, they are, or reveal themselves to closer inspection, muddled, incoherent, ambiguous, and so neither intelligible nor explanatory. This specially appears when we recognize that we are extending their use or "stretching their meaning": we ask ourselves whether in doing so we are employing them in a new meaning or with the old meaning, and we cannot feel sure of our answer.

Now the first form in which this situation disclosed itself was this. Used to the unquestioning employment of the word and its meaning in relation to the sensible world, the Greeks recognized that they were employing it also in relation to the non-sensible world of special magnitude or figures. I will not dwell on the paradox which results from their definition of this world as the world of immovables or stationary entities—a world from which motion was a necessary absentee. But they found that they could not speak of the relations between its denizens without importing into their account (their "science") the mention of motion. Clearly this was not motion "in the ordinary sense," for it was motion without possibility of deformation, a possibility really excluded by the constitution of the sensible or physical world. Yet it could be, or must be, understood. Had the word wholly changed its meaning, or did it carry forward into its new use all that was essential or intelligible in its old? (A perfectly analogous question arises about "bodies" or "solids.") The problem became more acute when Mathematical Astronomy or Celestial Physics was developed, and would have been further

exasperated had they considered its use in *στατική*. The blessed adjective "ideal" might have enabled them, as it has enabled so many moderns, to hide their heads in the sand, but I doubt whether they would have looked at the solution which apparently satisfies one modern that the "ideal" motions are really a misnomer for "the transference of our attention from one figure [or configuration] to another": indeed this would raise the far more difficult question whether such "transferences" were themselves motions in the same sense as the observable motions in the sensible world. (If the modern answer would be, as I suspect its author and possibly Alexander would say it was, that they were, I should still like to ask, in which case of the two the common meaning was the more intelligible or actually better understood.)

Passing over Plato, who has much of importance to say on the subject, I come to Aristotle, whose views I am going to report from memory. According to him there are four sorts of sensible motions. It is difficult to see what he holds to be common to all four. They must be, at least, analogous each to each. As local motion is the only one that can occur by itself, or, I suppose, be thought of (understood) by itself, we may confine ourselves to it. In it there is (or is implied) a "subject" (a *mobile*) and a transition between terminals: these terminals are, in the end, "states" of the underlying subject, and motion is its passing from *δύναμις* to *ἐνέργεια*. So long as the motion is the *mobile* combines in itself *δύναμις* and *ἐνέργεια*: it is an imperfect *ὄν*, and its existence or actuality is imperfect. In the pure case of the supralunar motions this is eternally so. Thus we reach the difficult conclusion that pure motion (or as pure as the cosmos admits) is an eternally imperfect mode of existence of an eternally imperfect being. I cannot resist the reflection that, if so, the motion of it is an imperfect notion (of an imperfect *notum*)--not a self-explanatory notion, and it is not a *νοητόν* but, to use a word of certain Platonists, a *διανοητόν*. This, while unfitting it for

philosophical or metaphysical use, not only does not unfit it for "scientific" use, but is precisely what fits it. Anyway there remains in it an ingredient, surd or opaque to understanding and that indissolubly blended with what is transparent or pellucid to it. Rid it of its persisting matter, dematerialize it and it vanishes from before the thinking mind (ceases to be an *object* to it or instrument of it).

I cannot but think that this is right, and, therefore, that (Pure or Absolute) Motion is the name, not of a concept or conceivable, but of something between or blended of a *conceptum* and an *intuitum*, a blend out of which we cannot elicit the *conceptum* or treat it as the intelligible equivalent of the whole: there sticks in it some element which is not irradiated by the light of the other. So long as it remains an "object" or "objective" or an "intermediate" or an "instrument," so it must be with it. Thus we contemplate and use what we imperfectly understand, for its objectivity and its usefulness depend upon its imperfection as an *intelligible* and a real. "The penultimate" is the ultimate *object*, but it is not the ultimate *intellectum* or real.

I pause here on the brink of what will doubtless be regarded as an abyss of absurdity. But I must not shrink pusillanimously from a plunge into Truth. For the Truth is that no "truth" can be an object or an instrument, and that what Mind alone has complete insight into, or understanding of, is itself and its own proper activity: all else it understands only so far as it mirrors that. And so the meaning of motion is something that the mind does, and in the doing of which it is an accomplice or fully informed witness, a witness of and to itself. Motion is only intelligible, if or so far as it is conceived of as an act of, and alone competent to, Mind (self-consciousness): if, and in so far as it is not so, it degenerates into an object beclouded with a foreign element, a body united with a soul in a manner impervious to understanding. Hence I can accept and welcome Alexander's dictum that in

S-T something is united with something else as a mind with its body, only I know that, in using such language, I am not clearing anything up to understanding, my own or another's, but naming a mystery, a mystical marriage of mystical spouses. But I must add that, while it is a mystery, an inexhaustible mystery, it is of all mysteries the most "questionable," and that from it emanate or can be elicited revelations each more self-revelatory than its predecessor. There is no first or final apocalypse, but, if we order duly our own acts of self-consciousness, a progressive series, endless either way, of trustworthy revelations. To provoke the Real to such self-disclosures there is required but the methodical development of our power of reflection. Reflect, and, having reflected, reflect yet again upon the result of your former reflection, and knowledge after knowledge of the Real opens out before you. You have already started (for reflection has no beginning in time): repeat what you have done, which you can do (for each step prescribes the next and the method of advance to it): progress in understanding is guaranteed to you, and no degree of insight will be grudged or denied.

"All this I know well enough will sound wild and chimerical enough to the profane herd"—but I will not continue the quotation, for even to psychologists* I would not apply the adjectives

* I desire to say once for all that by "psychologists" I here mean persons infected with what I hold to be a special philosophic error, "Psychologism," an error which consists in the covert or overt assumption that the mind is nothing but a natural object. Alexander is one of them, not in ignorance but of deliberate conviction. How he became or made himself so, I do not inquire because it would be to raise the forbidden question of his "theory of knowledge." But I must point out that temporarily or finally to assign to our "theory of knowledge" a position posterior or subordinate to our "theory of being" is temporarily or finally, to hold and employ "a theory of knowledge"—or (should I say?) to "enjoy" such a theory without "contemplating" it, still less expounding, criticizing, arguing it. I protest that *pro mea parte* and according to the measure of my abilities am prepared when it appears to me seasonable or required to expound and justify my "theory of knowledge" and to give reasons why its exposition must precede and govern my "theory of being." But (a) better expositions than I can give are extant and available, (b) this is *not* one of the seasons for its exposition.

that follow, still less to those who, ignorant of or prudently ignoring them, have in the past erected the magnificent edifices of the sciences and are still engaged in that work of profit to mankind.

From the lighted ether or "photo-sphere" of philosophy I redescend to the twilight of the cave, where alone the sciences can ply their endlessly helpful activity, where "objects" present themselves, abiding our questions and yielding their secrets to our scientific methods. There all *intelligibilia*, all processes of mind, all devices and instruments, are beclouded and confused, and among them is what we name "Motion," and *a fortiori* its derivatives "Space and Time." These we see *because* we cannot see *through* them, behold or intuit *because* we cannot understand or conceive them. Ambiguous of nature like the bats, they haunt the twilight, "tumbling about between the real and the unreal," the knowable and the unknowable. Motion is and must ever remain to us something nameable but not explicable, describable but not definable, a symbol whose meaning cannot be exhaustively or adequately expressed, an ill-matched couple wedded indissolubly together, to borrow Mr. Bradley's phrase, without a *modus vivendi* arranged between them and therefore in no genuinely spiritual union.

To attempt to define motion to purify its notion is to essay a task fore-known to be endless: to succeed in it would be to destroy its value for scientific use, to evaporate it as fact or object or instrument. But I repeat that this does not mean that we must take it as it is given, is presented or presents itself to us: rather, it means that its first appearance or being can for such purposes be indefinitely amended and improved upon. And to this I believe Alexander has made a most important contribution, and I cannot express too strongly my conviction that men of science would be well-advised to familiarize themselves with his doctrine, to assume it, to employ it, to act upon it. I believe that some such further elaboration, nay, as it stands, it

more than any other offered basis, will support the structures they have constructed or are now building. It is for science the soundest foundation at present indicated, the surest and best hypothesis available. At any rate, I have none better, more trustworthy or solid, to suggest. Nay, I would add, for what my opinion is worth, that, compared with it, all *other* proposed foundations seem to me but quaking morass or shifting sand.

True it is that, while I still maintain this opinion and justify myself in maintaining it, I hold that, could we compass a complete understanding of what is so named, it would vanish tracelessly from the objective world ("Nature" as total field of the sciences,) dissolving into the pure ether of the intelligible, without leaving any wrack behind, but I urge that contention here no more, nor do I say aught of what after such a sea-change it would recognizably become. But I hold that it would not be transmuted into nothing: rather it would be eternized and lodged in its true home, where alone it showed itself as what it really is. Meanwhile, and short of that consummation, it compares to the eye of science and in its domain plays its useful part. As one deeply interested in the progress of science, though largely and perhaps culpably ignorant of its past successes and its present needs, I gratefully welcome Alexander as my instructive and delightful *cicerone*, my kindly and patient interpreter, my scientific instrument-maker.

So viewing his office and his work, I venture to offer to him some humble criticisms and suggestions. I would ask him, above all in the interests of his own doctrine, to adhere to the word "Motion" (with or without Pure) and to abandon the alternative "Space-Time" (or "S-T"). For it almost inevitably misleads the reader (as it misled me) into thinking that to arrive at what is so named it is possible to proceed by starting with Space and Time separately (assuming them to be already present or given to us) and then blending them in some way which is symbolized by a typographical hyphenation. That can only fail, for what is meant is not a blend of two separately apprehensible

elements. Space and Time, if apprehended separately, are so only after a wrongful and partially delusive extraction of them by which they are radically disnatured, from an undiscernible unity, and though by their ragged edges and distorted constitution they betray the act of violence which has torn them apart, they are not by themselves what they are together, and "not all the king's horses and all the king's men can put Humpty Dumpty together again." In their severalty they bear, indeed, a resemblance or analogy one to another indicative of a common source or of past intimate communion, but they cannot be re-integrated, and the attempt results in a clear misfit, a violent yoking together of disparates, not a vital union as of mind and body. Once disrupt "Motion" into Space and Time, and the torn tissues will never heal again.

But, the bewildered reader may ask, how otherwise than by some such analysis can motion be "expounded" at all? Is motion (or its doctrine) simply to be swallowed whole, to be taken in *uno intuitu* or not at all? The objection is serious, but not, I think, insuperable. I would meet it, or turn it, by reference to a process of mind which under similar circumstances we all practise. Mind makes its way by entrusting itself to the principle of what I may call compensating errors. Indeed, as I now see, the procedure which I have just deprecated is a rough instance of it: in it we first commit one open error and then endeavour—more or less successfully—to correct it by committing a (or the) counter error, believing in the face of all proverbs, that two wrongs (if they are the right wrongs) do make a right. But there are better instances of this method, better because more obviously successful. However, this is scarcely the time to carry this matter further, and, once more, to do so would lead me back to the forbidden ground of "theory of knowledge."

To sum up, my opinion is that Alexander is here on the track of something of very great value and that what he announces that he has found is really what he has been looking for and also

that without which men of science must find themselves at a loss, hindered and hampered in their proper work. The elucidation of "motion" is a prime requisite in and for science: Motion is fundamental to all science and cannot wisely be left in its present obscurity. To that elucidation of its nature and position in Nature, Alexander has made a contribution the value of which it is not easy to exaggerate, and I commend it to the continued serious examination of myself and others. In a word, though I cannot bring myself to call it true or even conceivable, I do not hesitate to say that in its proper character and sphere as a scientific hypothesis, it is not only right, but the rightest with which I am acquainted.

I feel fairly sure that Alexander will regard this testimonial as a Danaan gift, and will descry behind or beneath its specious exterior a fundamental dissent from his Metaphysics, and if he does he will assuredly not be mistaken. There yawns between us, I regret to have to acknowledge, an immense chasm. Even if he accepted the terms of my eirenicon it could only be with a vital equivocation on the part of either or both of us. What its terms mean to me cannot be what they mean to him, and *vice versa*. For to him what he calls "Motion" is *ens reale* or *realissimum*, and to me it is an appearance, an unreality, a fiction or figment.

Sure as I am of my ground, I turn with no hope of success to convince or convict him of error, yet I can scarcely believe that his error is invincible and I hope at least to win some support from the *corona auditorum* of our discussion.

*Meeting of the Aristotelian Society at 21, Gower Street, London,
W.C. 1, on December 15th, 1924, at 8 p.m.*

IV.—SCIENCE AND PHILOSOPHY.

By L. J. RUSSELL.

COMTE has pointed to the way in which the flamboyant spirit of man receives discipline through the ages. But Comte regarded man as an interloper projecting human nature erroneously into things; and in consequence looked on the discipline as a matter of the progressive withdrawal of man's suggestions from the interpretation of nature. Human nature, however, is a part of the nature of things. It has been formed, or rather is in the course of formation, in the workshop of nature; and the disciplinary process is an essential part of its formation. The fundamental thing is not the projection of man's nature into the nature of things. The fundamental thing is the way in which man enters into nature, through his various activities, by making such demands of nature as his nature constrains him to make; and the gradual fashioning of his nature, which results in a transfiguration, is a matter of the disciplining of these demands through his attempts to force nature to realize them. He does not yet know what demands he ought to make; but his only way of discovering this is to make the demands his own nature enjoins on him, endeavour to realize these demands in all their strictness in the concrete detail of nature, and thus submit them to the discipline that their own working out involves. In doing this he will be at once discovering the nature of things and fashioning his own nature.

I.

The paradox about the search for truth is, that man cannot seek for truth in a particular field until he has already some notion of what is likely to be true in general.

It is a paradox with which every account of knowledge, whether it be theory of knowledge or history of science, ought to deal faithfully; and yet it is so difficult to deal with that many are tempted to put it in the background, if not to deny it altogether. Plato and Kant knew its full force, and were led by it into strange paths, to the great benefit of mankind. Plato suggested that the key lay somehow in the direction of the idea that knowing must be a calling to mind of something already known, but partly forgotten. Kant put it more adequately when he said that man must approach nature, not as a pupil, but as a judge, forcing nature to answer his questions. But neither Plato nor Kant met the full difficulty of the situation, which consists just in the fact that we can give no ultimate account of what is likely to be true in general. Our views about what is likely to be true, while they condition our search for truth in a particular field, are themselves modified by the truth we thus gain. Our feet cannot rest on solid earth while we put up our hands and touch the sky. There is no solid earth under our feet. We must climb on our own shoulders to reach the sky.

The accounts, given by many writers on scientific investigation, of the rôle of hypotheses, meet the situation partly, but not fully. For by restricting themselves to the procedure of the scientist within his special field, they tend to neglect one of the main problems, which arises when we ask how that special field was constituted; a problem which is not to be satisfactorily dealt with by the hypothesis that science's procedure is itself the result of a hypothesis.

The coherence theory of truth, so far as it succeeds in keeping clear of idealist conclusions in metaphysics, comes closer to the situation, for the very reason that its field is wider, embracing all human awareness. It is thus clearly aware of the problem that arises when we endeavour to get into one view the scientist's search for truth, and the assertions made or implied by art, ethics and religion about the nature of the universe. As a result,

it ought not to be tempted to solve the problem by asserting the primacy or ultimacy of the presuppositions of either science on the one hand, or art, ethics or religion on the other. Yet, in fact, the advocates of the coherence theory almost invariably do the latter; thereby missing the full nature of the problem the theory is meant to explain.

II.

We may best begin by a consideration of the nature of scientific investigation, endeavouring to show that in scientific investigation something more than hypotheses is needed, and to indicate what more is needed.

It is generally agreed that a purely passive attitude toward the world will never result in the discovery of truth. There must always be on the part of the inquirer an active questioning, and an active selecting of certain facts or aspects of the situation, as more likely than others to answer the questions. There are here two points, both of which must be taken with seriousness; and a satisfactory theory of knowledge must not emphasize either to the detriment of the other. The two points are contained in the single statement, that investigation is guided and conditioned at every step by general points of view, which the investigation itself modifies. The first point separated from the second is, that always there must come from man himself some idea or question (which is always a leading question), before nature will tell him anything at all. Kantians will think at once of the Categories, and of the Ideas of Reason. The second point separated from the first is, that these ideas or suggestions or questions are never final. Scientists will think at once of the rôle of hypotheses; and some will bring the Kantian Categories and Ideas (or rather the principles based on them) under this head.

My own view is that the Kantian doctrine goes too far in meeting point one, and does not meet point two; and that the

account of hypothesis in science as empirically interpreted goes too far in meeting point two, and does not meet point one. I have no complete theory to meet both points. The account I shall endeavour to give of "demands" as of the nature neither of ultimate principles nor of mere hypothesis attempts to rest on such examination of fact as I have been able to make. It is put forward rather as a programme for my own future investigation than as a conclusion. It will seem no doubt to many to savour of compromise. How "demands" themselves are possible, whence they arise, I do not know with any clearness. But the endeavour to meet both points does seem to me to lead to a view of the nature of knowledge and to open up problems.

I begin with the first point; and here it is necessary to insist, as against the empiricists in science, that the points of view, or leading questions, which are necessary for investigation, are not completely accounted for by saying that the facts "suggest" them, or that they have been suggested by past experience of fact. For in what way can experience or fact suggest anything? Let us take an elementary example. The early Greek philosophers, looking at the heavens, boldly declared that all is one. Why did the heavens suggest this oneness of things? To a merely passive being the heavens (if capable of suggesting anything) would have suggested not merely this, but many other things as well. So no doubt they did. For indeed, when something is said to be "suggested," what happens is that of the many suggestions received, one is not only received, but acted on to the exclusion of the others.

Whence comes the exclusion? Nature does not "suggest" that things are self-consistent, and that two things which are self-contradictory cannot both be true. Nature often presents us with self-contradiction. She is continually suggesting to us that A is B and at the same time not B. It is we who "suggest" to nature that she is misleading us in this suggestion. Nature does not suggest to us that every effect results from one and only

one combination of conditions. She suggests all sorts of relations between effects and conditions. It is we who suggest to her the proper relation. Time after time she suggests that our suggestions are unfounded. We on our side are willing to modify some of our suggestions, but others we keep on making.

We cannot then derive our questions and our suggestions straightway from experience of the past.

III.

The points of view, or leading questions, with which an investigator goes to nature, are of two kinds : which we may call hypotheses, and demands. It is nearer the truth to say that hypotheses have been suggested by facts than to say this of demands. I shall endeavour in what follows to distinguish demands from hypotheses.

(i) Hypotheses are of two kinds, which we may describe as special and general. In the first place, there is the tentative generalization which guides the investigator in his collection of facts in relation to a special problem. This, in any developed field, is dependent on a great number of previous results, and on a great deal of technique already elaborated. We may take as illustration the case of any investigator, in a modern chemical laboratory, whose problem falls within the general field of chemical theory taken for granted as a whole. He does not begin to work on the facts with naked vision ; he sees his facts against a background of specific chemical reactions, weighings, calorimetric and volumetric and spectroscopic determinations and what not, investigated and theorized over in the past. His work seems to be essentially one of establishing correlations between facts which he is enabled to discover and make precise just by means of the correlations he establishes between them. This work of correlation seems to depend on his use of tentative generalizations, and these latter appear to be of the nature of a suggestion that

certain facts already discovered are of central significance in the field under investigation.

(ii) The second kind of generalization which guides the investigator is wider, and forms a part of the basis of an entire special science, rather than the basis for a special problem within a special science. Take, for example, the conception of the organism as built up of cells, and the general conception of evolution ; or Newton's laws of motion, the atomic hypothesis in chemistry, or the principle of the conservation of energy. All these are of the nature of hypotheses ; but of such scope and importance that they are rather controlling and guiding hypotheses, than hypotheses at the bar standing their trial. But at the same time as they preside over their special sciences there is above their head a sword suspended, and even when not completely destroyed they are continually liable to modification by the course of the investigation which they themselves guide and sustain.

(iii) There is a third set of generalizations which guide the investigator. They are so wide in their scope, so general in their nature, so tenaciously held to in the face of contrary evidence, that they seem to express something in man's attitude to the facts rather than to express the mere facts themselves.

I call them demands. For, among their characteristics, two stand out. In the first place, they are anticipations : they say more than nature tells. In this, of course, they are like hypotheses. But, secondly, they are distinguished from hypotheses in being more truculent. They are challenges. They insist that things must be so, and challenge all comers to show, if things are not so, how this is possible.

Some of these demands are logical in nature : as, for instance, the demand for consistency, non-contradiction, in things, or the demand that events shall bear out the principle of causality (or better, the principle of generalization). To the old question whether the so-called Laws of Thought are laws of thought or

characteristics of things I should reply that they are demands made by man about things.

Some may be called, if you will, æsthetic : as, for example, the demand for simplicity made in the 16th and 17th centuries (nature does nothing in vain, acts by the shortest paths), and the demand for economy, as shown, for instance, in the use of Occam's razor, and in the attempts to reduce biology to chemistry and physics, and to reduce chemistry to physics. These are not only methodological principles for the safer regulation of our thoughts ; they are this only because they are something more, namely, demands we make of nature.

Some can be called metaphysical : as, for instance, the demand for identity—*i.e.*, the demand that what is real shall persist identical in spite of change, which is at the basis of atomism in physics and of Mendelism in biology ; or the demand for continuity, which when coloured by the demand for identity, seems to be at the basis of the principles of conservation of momentum, and of conservation of energy.

I do not attempt to give a complete list of these demands ; I do not think such a thing is possible. I desire only to draw attention to them as different in character from hypotheses, whether special or general. M. Meyerson's excellent books are a mine of information concerning the way in which they operate in determining the general hypotheses of the sciences, and thus, mediately, the special hypotheses (though his point of view is different from mine).

I do not think there is anything ultimate, or absolute, about these demands. While our attitude in regard to them is different from our attitude to hypotheses, yet, in the progress of knowledge, they do undergo modification, although we can rarely say that a demand is permanently given up by man. It is clear, for example, that man's demands in relation to the simplicity of nature (which played so important a part in the 16th and 17th centuries) are being strongly attacked by many thinkers at the

present day ; and the same is true of the demand for identity in the sense of a permanence which excludes change. So again, the demand that I have called the principle of generalization has in its expression received considerable modification in the last two centuries. Even the demand for non-contradiction has had a long history, showing progressive modification in our view as to what does, and what does not, constitute a violation of the demand. There are indeed pioneers of thought, voices crying in the wilderness, who would have us give up our demands for non-contradiction, and for order, in the Universe ; whether this heralds from afar off a new dawn is impossible at present to say. But any attempt to show that a demand can be done without is worthy of respectful consideration. Again, the contrary of this is often true. Many of the most important advances in the history of thought are due to the reassertion, with greater strictness, of an old demand. I suppose, for example, that Einstein's advance on the Newtonian Dynamics is largely the result of his having, more strenuously than Newton, demanded that the principle of generalization should be met. The history of science, discerningly written, is full of such instances.

IV.

Thus man formulates demands ; his demands are not always met ; sometimes he persists in them, sometimes he changes them. But always some demands must be made.

When, then, the early Greek, looking at the heavens, declared boldly that all is one, he was expressing, not so much what he saw plainly in the heavens, as something which fitted in with a demand of his own nature. "All is one" expressed, not a fact of observation, nor a mere supposal or hypothesis, but a demand. He wanted unity, in spite of the multiplicity, the variety, the change, in things ; and he set about discovering where the unity was. He insisted, in short, that whatever nature seemed

to suggest, she was really one. He did not (as the event showed) know exactly what he wanted, or in what sense he expected things to be one. But unless he had set about his task with this active insistence as a guide, he would have made no progress at all. Men ever since have been insisting that all things shall be one; and have been discovering that nature partly accepts, partly rejects, such suggestions as they have been able to make to the question: One in what sense, what kind of one?

Not all men; for some men have insisted (demanded) that she be many and not one; and she has partly accepted, partly rejected, that suggestion too.

This does not, I think, justify our speaking of nature as "irrational," as many Continental philosophers do; all we are justified in concluding is that our knowledge is not yet sufficiently far advanced to enable us to say what demands we ought to make.

If this view be right (and I am aware how much justification in detail it stands in need of) we arrive at a conception of knowledge as involving demands, and an attempt to read the world in the light of these demands. There are several points to be noted in this conception:—(a) Man must make demands if he is to understand; (b) but he does not know what demands he ought to make; (c) his demands enable him partly to understand, and in the process they themselves get modified; or, as we can most appropriately say, considering the nature of the whole process, they receive discipline; (d) experience from this point of view is the process whereby man's demands become disciplined. I do not attach any sanctity to man's demands. However persistent some of them may be, none of them is finally above modification. They are not arrived at by any process of intuition. They are none of them *a priori*, in Kant's sense of universal and necessary. We can speak of them only because we see them operating in man's attempts to understand the world. Again, it is right for the scientist to try to do without them so far as

he can. For only in this way can they receive proper discipline. But I do not see how the scientist can do without some demands.

V.

The demands I have so far mentioned are the ones the scientist as a rule makes, because he finds he can get guidance from them. There are, however, other demands which man in general makes, which he is not satisfied to lay altogether aside; such as those which find expression in the old argument to God from design, in the argument that there must be some reason, some purpose in the universe, some end it is tending towards, in the view that man is a self-creator who has his own freedom to win, in the argument that man's life cannot be ended in this life, because if so it is meaningless. They are the demands made by man in connexion with his experiences in morality and religion. Man's experiences in art seem to me to issue from and give rise to certain demands of the universe, of a different character; but that is a question on which I am too conscious of ignorance. It was only by degrees that the scientist laid aside these demands in his investigations. Nor were they laid aside as by neglect. They were deliberately rejected after examination of their nature.

It is difficult to estimate rightly the significance of modern science without some knowledge of the whole process by which in the 16th and 17th centuries the foundations of modern science were laid. It would be a mistake to suppose that those foundations were laid by any process of making unexamined assumptions. They had to be won by hard fighting, through a long series of discussions. Nor were those discussions purely scientific. They were philosophical, for they dealt with the general nature of knowledge, the general problem of methods of investigation, of the place of factual knowledge in knowledge as a whole, of the relation between mechanical causes and man's moral nature. It is clear that the disputants believed themselves to be endeavouring to determine what general assumptions we ought

to make about the universe, if we are to hope to extend our knowledge by a gradual but sure process. The result, for the scientists of the second half of the 17th century, was a wholesale rejection (for scientific purposes) of attitudes toward the universe hitherto held, a distrust of many conceptions as referring to mere metaphysical entities (the phrase is used, *e.g.*, by de Volder in his correspondence with Leibniz) and in many cases the acceptance of an outright nominalism.

For the most part, in the latter part of the 17th century, there is a distinct tinge of caution among the scientists. They do not regard science's assumptions or demands as exhaustive; they regard the field of science as only one of the parts of reality; but they do regard those assumptions as fundamental within the field of science. This is a position of unstable equilibrium, as we see in the 18th century, where the field of science is often widened to embrace all reality, and the demands of science taken to express the ultimate and only characteristics of reality; but I think the unstable position is the nearer to the truth. However that may be, it seems clear from the history of the process that if we take the assumptions which constituted modern science as of the nature of demands, we must regard them as disciplined demands. They have been separated from other demands which man makes, after a careful examination of their nature on general grounds; and with them, so scrutinized, the scientist goes forward, to use them as instruments for investigation. As disciplined demands, accepted after a general scrutiny of man's demands, they can be called philosophical results. As demands, they are liable to further modification by the investigation which they themselves make possible.

Thus (if our view is right) the general framework of any science has had to run the gauntlet of philosophical criticism by the scientists themselves, before it is accepted by the scientists. But once this examination is passed, the scientist is content, and goes forward to his investigations, allowing his general frame-

work to be filled in by the facts (and so gradually modified) without subjecting each modification to philosophical analysis. He is sometimes content even, within his general framework, to have recourse to conceptions which seem self-contradictory, provided they promise temporary usefulness.

Yet, whenever the old framework seems inadequate, and a new framework has to be elaborated, the general philosophic analysis is once more performed, again by the scientist himself. We have witnessed this in the work on pure mathematics which was done in the second half of the 19th century ; in the modification of the Newtonian Dynamics ; we see the possibility of a further transformation in the problems raised by the work on radiation. We see this discussion of fundamental conceptions as a necessary adjunct to scientific investigation in the biological controversies regarding the points of view of mechanism and vitalism, or regarding the relation between form and function, or the nature of evolution. Closer home, we find it in the attempts to found a science of psychology, or in the endeavours to create a science of pure phenomena, or in the attempt to get true conceptions for the investigation of so-called psychic phenomena.

In all these cases the discussions turn on the question of what demands it is proper to make ; in all, the discussions can be called philosophical. Progress seems to consist in the making of more rigorous demands ; it results in the disciplining of the demands which hitherto man was satisfied to make.

Thus, I suggest, the scientist turns philosopher perforce when it is a question of establishing a fundamental framework for a science, or of remodelling a fundamental framework which has proved inadequate. The scientist philosophizes only sometimes.

What, then, is the nature of the scientist's philosophizing ?

I have already said that man confronts the world with demands, not all of which can be satisfied. Experience is the disciplining

of man's demands, through the process of endeavouring to realize them. We do not know what demands we ought to make ; all perhaps we can say about truth is that the truth will satisfy all the sides of man's nature which ought to be satisfied.

The scientist's philosophizing, then, is partly this : it is an attempt to formulate as clearly as possible a satisfactory view of the structure of the universe as a whole—*i.e.*, to formulate disciplined demands, conditioned throughout by the scientist's ulterior purpose of detailed investigation. His view must lead to principles which can be thrown into such a form as will serve for purposes of calculation : this is his dominant demand. He may conclude—many scientists do—that reality, while rejecting this demand, permits a man to work with it, who is content to renounce the hope of attaining, through science, to a knowledge of the nature of things. But if he does, he draws this conclusion as the result of an attempt to formulate demands about the nature of things.

VI.

What the scientist does, at certain crises of his history, the philosopher does always, with a wider reference. The philosopher is not concerned with getting a view which will serve for purposes of calculation. He has not the expert scientific knowledge necessary for this. He emphasizes the need for the truth to satisfy all the sides of man's nature that ought to be satisfied ; and (among other things) he examines the scientist's general results with this special aim in view. He examines also the other demands which the scientist has rejected, and tries to construct a satisfactory view as a result of this consideration of demands of all sorts. There is only one truth, and we have not attained it. Meanwhile, it is to be sought along diverse lines, in different spheres, in science, art, ethics and religion, let us say. Each of these makes its own demands of the universe, and the demands lead to divergent results. But the truth must satisfy

all our legitimate demands. Which are legitimate, we have to discover slowly and laboriously. And the search involves not only work along the divergent lines, but an attempt to form a system of demands which shall not conflict, and shall be able to be elaborated in detail in the various spheres, which will then be different, but not divergent.

Various types of philosopher co-operate in this complete task.

(i) There is, in the first place, the systematic philosopher. The only way, in the end, of discovering what demands man ought to make, is to endeavour to understand things in the light of these demands. And this the systematic philosopher endeavours to do, proleptically. He bridges the gap between promise and fulfilment, and supposing reality actually to satisfy the demands we are constrained to make here and now, endeavours to see what that reality in reality is. He builds in Philosophy a Utopian Universe; and his building has all the advantages, and all the defects, of the Utopia.

This is an important part of the task of the discovery of truth, just as for the true understanding of social and political problems we must formulate our ideals, and construct them into Utopias. The subject is a very important one, and needs a special essay. We can only hint its importance here.

The systematic philosopher who takes his constructed universe as the real universe is, however, making a mistake. He is taking his Utopia as existent, and in consequence misunderstanding the function of Utopias, philosophical or social. His real function lies in the light that his constructions throw on the demands that he is building with. It is a part of the wider task of the disciplining of demands. Those demands will be tested ultimately, not only in the Utopian field, but in the actual field of detailed investigation and of concrete life. The systematic philosopher's light is provisional.

The systematic philosopher who regards his present demands as granted by the Universe can be called the Rationalist. Perhaps

most systematic philosophers have been Rationalists in this sense.

(ii) The philosopher who is unwilling to risk this enormous task, or who feels it is premature (a mistake, as we have seen, for the task must be continually undertaken) may pursue another path. He may devote his energies to analysing and understanding the demands involved in those sides of man's nature which the scientist leaves on one side; and may, without coming to grips with science, endeavour to discipline these latter demands through insight into man's artistic, moral and religious life. That within ethics itself, within religion, we have a process of the disciplining of demands similar to the process within science, can I think be made out by detailed consideration. That the same must be said within art is implied in the view of this paper, though I have not the knowledge necessary to see clearly here. This process at any rate I take as the clue to the possibility of development in art, ethics and religion alike; and the criterion of the distinctness of a sphere of human activity (art, or ethics, or religion) seems to me to be, whether, within the sphere as attempted to be marked off, such a progress in the disciplining of demands can be seen. Art, this view implies, is a genuine sphere of human activity, if its material and its activities constitute a sphere within which human beings over the ages can find satisfaction in the progressive disciplining of demands through their application within the sphere. The various forms of necromancy are not genuine spheres of human activity just because this disciplining of demands is not exhibited in them.

The various spheres as so defined are not entirely separate; just as in the case of science, so in their case, the disciplining of demands is partly a matter of a consideration of the place of these demands in relation to all the demands man makes of the universe.

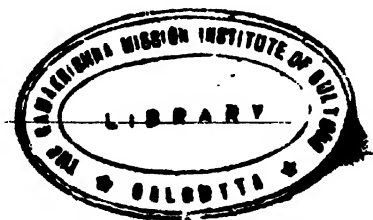
(iii) The philosopher who is rather critical than constructive may devote his attention to those demands which the scientist has chosen as legitimate. He will examine the scientist's general

results, in order to discover precisely what demands are being implied, and he will bring these results to a close scrutiny in the light of the whole nature of man. Or he may investigate a similar problem in relation to art, ethics or religion.

Whatever task the philosopher essays, he should be in full agreement with the scientist on certain points—(a) Only legitimate demands can be satisfied; (b) we can only know what demands are legitimate by explicating the universe in detail by their help; (c) there cannot be a view which is true in philosophy and in the end unworkable in science. Nor can there, I think, in the end, be a view which is true in science and untrue in philosophy.

There is a difference of emphasis between the philosopher and the scientist. The philosopher sees the risk involved in leaving possibly legitimate demands aside, whereas the scientist sees the risk of incorporating possibly illegitimate demands. The scientist seeks the minimum, the philosopher often the maximum, in the way of demands. The contrast between Occam's razor and the Will to Believe puts the difference in its sharpest form. Both scientist and philosopher are necessary. Neither by himself can get the truth. The truth lies far ahead, and we must pursue it in all the ways. In the end the truth will be one only, satisfying all the sides of the nature of man as constituted in that happy epoch (if it ever arrives); for the man of that epoch will have had his demands disciplined and sifted.

Whether there is any end for truth to be in, I cannot say.



*Meeting of the Aristotelian Society at 21, Gower Street, London,
W.C. 1, on January 5th, 1925, at 8 p.m.*

V.—THE DYNAMIC ASPECT OF NATURE.

By G. DAWES HICKS.

I.—Force, in the popular acceptance of the term, not a subjective phenomenon; nor II, exclusively based upon physiological conditions. III.—Force and energy in the physical world. Matter and Force inseparable. IV.—Modern atomic theories and the concept of energy. V.—General Theory of Relativity and the Forces of Nature.

I.

FORTY years ago a somewhat lively controversy was being waged as to the exact significance of the term "force" in physical science. Some physicists, notably in this country Tait, of Edinburgh, maintained that there was no such objective reality as "force," that the term "force" was merely a convenient name for expressing a certain rate of change, the rate of change of momentum, understanding by "momentum" the product of the mass moving into the velocity with which it moves. "Force" ought no more to be regarded as an actual fact than the bank rate of interest (be it two, three or four per cent.) ought to be looked upon as a sum of money, or than the birth-rate of a country ought to be looked upon as the actual group of children born in a year.*

That the protest which this contention embodied had a certain measure of justification may be at once conceded. The way in which the term "force" had come to be employed in physical science was no less a scandal than the way in which the term "faculty," against which Locke inveighed, had come to be

* *Nature*, vol. xiv, p. 459 *seq.*, and *Recent Advances in Physical Science*, p. 338 *seq.*

employed in psychology. "Accelerating force," "centrifugal force," "polarizing force," "vital force," and a host of others, were freely spoken of as though they were substantive powers, performing functions in the world similar to those performed by the spirits and deities of primitive cultures. Too frequently it had become the fashion to fall back upon these occult agencies for explanation of natural events when other explanation failed—a mode of procedure which reached perhaps its culmination in Herbert Spencer's *First Principles*, where "Force" appears as "the ultimate of ultimates"—a sort of almighty potentate, directing from without the affairs of the universe.

Nevertheless, I doubt whether it has ever been possible for the physicist to adhere consistently to the use of the term "force" as signifying "the rate of change of momentum" or "the rate of doing work per unit of length." Tait himself did not succeed in doing so. While insisting with peculiar vehemence upon the definition just quoted, he is constantly to be found making use of the term in the very sense which he deprecates. Following Newton, he attributes to "force" any change whether in the direction or in the rate of motion of a body. He asserts that "the longer a given force acts the greater will be the change of momentum which it produces," and in reference to "a certain force acting through a certain distance," he speaks of the possibility of calculating how much work it will do. That is to say, within the compass of a few pages "force" is declared, on the one hand, to be the agent which does work, or changes the rate of motion,* and, on the other hand, to be the rate at which some

* Cf. Thomson and Tait's *Natural Philosophy*, vol. i, § 183. "Force is any cause which tends to alter a body's natural state of rest or of uniform motion in a straight line." Force, it is said, "is wholly expended in the Action it produces," and "may be of divers kinds, as pressure, or gravity, or friction, or any of the attractive or repulsive actions of electricity, magnetism, etc." And again (§ 185), "the measure of a force is the quantity of motion it produces in unit of time."

other agent does the work or changes the rate of motion. It is little short of nonsense to plead in excuse that in the former case the term "force" is merely a convenient symbol employed to shorten what would otherwise be a cumbrous mode of expression. As an affair of terminology it matters not at all whether the term be used in the one sense or in the other. What does matter is that if the latter usage be adopted it shall not be assumed that the reality of that which had been denoted by the former has been *thereby* disposed of. No gain to accuracy, the *sine quâ non*, as Tait affirms, of all science, can accrue by confusing that which is measured with a way of measuring it.

In point of fact Dr. Broad is, I think, clearly right in denying that anyone "ever does *mean*, or ever has *meant*, by 'force' rate of change of momentum."* No doubt the perceptive experience from which the scientific concept of "force" was originally derived can be safely said to be the familiar experience of the initiation of movement by us as living beings. The primitive representation of such a situation is crudely anthropomorphic; the agency is taken to be the agency of the conscious subject. By degrees, however, what may fairly enough be called the mechanical side of the transaction is distinguished from the subjective aspect. The latter comes to be regarded as that in which intention or purpose is prevailingly manifested, while the former comes to be closely connected with bodily effort, the change produced being vaguely thought of as the overcoming of resistance by muscular energy.

On the strength of considerations such as these Professor Tait contended, as so many others have done, that the experience of strain or tension is purely a subjective phenomenon, that we have no warrant for supposing that strain or tension is a real property of physical nature. To vision the universe appears to be filled with light and colour, although reason, as he thought,

* *Scientific Thought*, p. 162.

convinces us that what we understand by brightness, etc., does not exist outside our minds, that the sensation of colour is subjective, the only difference possible between different so-called rays of light outside the eye being simply in the extent, form and rapidity of the vibrations of the luminiferous medium. In like manner, so he would have us conclude, when the muscular sense induces us to believe that the body is exerting power, as in pushing and pulling, or when we resist the impetus of a gust of wind, we ought to guard ourselves from the anthropomorphism of attributing the strain or tension which we feel to the external world. When the earth attracts, as we say, a stone, it cannot be conscious of exerting effort, nor can the stone be conscious of being pulled.

So far as secondary qualities are concerned I have tried to show on more than one occasion* that the doctrine which this distinguished scientist accepted as indisputable will not bear the test of critical scrutiny. I have tried to show, further, that a perfectly intelligible and coherent account of the process of perception can be given when colours, sounds, etc., are regarded as characteristics of natural objects, and that strong reasons can, in fact, be furnished for holding that they are characteristics of natural objects. If they are, then obviously the analogy which Professor Tait sought to constitute makes for a conclusion very different from that which he, in common with numerous other writers, would have us draw. He committed, it seems to me, the fallacy of assuming that because vibratory motions give rise to, or condition, our acts of perceiving colours and sounds, these vibratory motions must be the equivalents in the external world of the colours or sounds which we perceive. But that does not follow—not, at least, until the possibility has been ruled out that both vibratory motions and sense-qualities may be comprised in a natural object, the former conditioning the occurrence of

* See e.g., Proceedings, N.S., vol. xvii, p. 318 *seq.*, and p. 434 *seq.*

the act of perception, the latter forming part of the content perceived. And what I am desirous first of all of maintaining on the present occasion is that, because we become aware of strain or tension through muscular sensibility, it likewise does not follow that the strain or tension of which we are aware must be subjective in character.

Let me dwell for a moment upon the analogy to which I have been alluding. As it is requisite to distinguish the *act of perceiving* a colour from the *colour perceived*, so it is requisite to distinguish the *act of perceiving* a strain from the *strain perceived*, or, as Dr. Broad expresses it, our *feeling of strain* from the *strain which we feel*. Manifestly it is absurd to identify "force" with the *feeling* of strain, for in no sense in which we use the term "force" can the feeling of strain be said to be a "force." But we are no more debarred on that account from maintaining that the strains which we perceive or feel are "forces," or indications of "forces," than we are debarred from asserting that the content which we perceive when gazing at a certain object is blue because the act of perceiving it is not blue. Here I cannot do better than borrow Dr. Broad's illustration. Unless after the manner of Plato or Fechner we suppose the heavenly bodies to have minds or souls it is clearly ridiculous to imagine that the sun is conscious of a strain when it pulls the earth. It is ridiculous, as Dr. Broad says, not because the sun could not be exposed to a strain, but because, presuming it to have no mind, it could not be conscious of anything, and not, therefore, conscious of a strain. Consequently, there is no incongruity in describing "forces" as the sort of entities which we become aware of in and through our perception or feeling of strain or effort, nor in asserting that physical bodies, such as the sun, are influenced by and exert "force" in this sense. In other words, there is no more reason for identifying tension or strain with the consciousness of it than for identifying colours or sounds with the conscious-

ness of those colours or sounds. Not only so. Dr. Broad presses, I think successfully, the further point that on the view one is opposing it would be no less unreasonable to say that a physical body, such as the earth, is round or rotates, than to say that it is subject to the strains or stresses which are what we ordinarily mean by "forces." For the concepts which we form of roundness or of rotation are after all grounded upon the particular instances of these universals which we apprehend through means of sight and touch. Without sense-experience of round objects the meaning of the term roundness would be as completely hidden from us as the meaning of the term blueness is hidden from a man born blind. "The person who uses the argument about the sun not feeling strains, as an objection to the view that the feeling of strain is the sensational experience which gives a meaning to the concept of force, may," writes Dr. Broad, "be invited to consider the following parallel argument: 'How can the concept of roundness be based on our sense-perceptions of sight and touch when the earth, which can neither see nor feel, is admitted to be round?'" And, as he says, "the answer, of course, is that the earth *has* the sort of properties which we have become acquainted with by seeing and feeling, and that it does not need to see or feel in order to have those properties." Just, then, as the earth has the properties of being round and of rotating without being conscious that it has them, so it may be subject to forces of which it is not conscious, and these forces may be the sort of entities of which we become aware in and through our perceptions or feelings of strain.* It is, in short, a gross blunder to confuse "force" with the awareness of force.

I should be prepared, indeed, to carry the argument further, and to dispute altogether the legitimacy of conceiving the mind or the "self" as being either subject to strain, in the sense in which that term is used of material things, or as putting forth

* *Op. cit.*, p. 163.

energy. The doctrine that in what is called the "will" there is to be found the prototype of what is ordinarily meant by "force," and that even in mature experience the "will" is the one and only "force" with which we are immediately acquainted has long been current in certain modes of philosophizing. "In willing," we are often told, "we feel that we are active; we are aware of exerting energy, and we know it directly." The so-called "sense of effort" is accordingly pointed to as the essential factor in volition, and this is supposed to yield the information that the "ego" is pre-eminently the seat of force, which operates upon what is contained in the realm of the "non-ego" and initiates changes therein. Nothing, it has been said, sooner brings home to one the poise and counterpoise between self and nature than the attempt to shut a door against a furious wind.* If, however, the "self" be regarded as in this sense an efficient agent there still remains the task of showing how, in that case, the conscious subject comes to be aware of itself as this agent. And not only has that task not been fulfilled, but I think we may safely predict it never will be. It has, for instance, been contended that, while it is in the act of willing that the self has existence, yet the self is cognized as a self only in so far as there is a felt opposition of the muscles to its activity. In the experience of voluntary movement, so it appears to be thought, there is supplied a pure inner perception both of the body and of the mental agent that operates through means of the body; and, somehow, in the duality of will-force and muscular resistance, out of which self-consciousness is supposed to spring, the ego is revealed to itself as the originator of the act through which it becomes known.† But can a shred of evidence be furnished of our having any consciousness, even the vaguest, of a situation such as is here depicted? Can we, indeed, form so much as an intelligible conception of the

* Martineau, *A Study of Religion*, vol. i, p. 199.

† *Œuvres inédites de Maine de Biran*, tome i, p. 204 sqq.

activity of the self being opposed by the resistance or the organic inertia of the muscles? In spite, however, of an assumption so extraordinary, it has to be admitted* that the contraction of the muscles is due to the stimulus of the efferent nerves, and then it is alleged that the volitional force acts upon the latter, although the awareness of such force only arises through the kinæsthetic sensations attendant upon the muscular contraction. So that, according to this account, it turns out after all that the "sense of effort" is no revelation of will-force, but that the supposed revelation is, as Mr. Bradley would have said, "an intellectual construction" which may quite well evince itself as "a thorough misinterpretation" of the facts.† Or, to take a less crude mode of dealing with the matter, it has been contended that in all voluntary activity there is, in Professor Baldwin's phraseology, "an earlier fiat than the will to move, and that is the fiat of attention to the particular idea of movement"; that, in truth, even in muscular exertion, the real "effort" is to be found in "attending" to the idea. Without seeking to unearth the mysteries covered by the term "fiat," I will content myself

* *Ibid.*, p. 212.

† In the present instance it is easy to show that it is a misinterpretation of the facts. De Biran argues that we come to distinguish voluntary action from instinctive or involuntary movements on account of the unique character of the kinæsthetic sensations attendant upon the former. In the case of involuntary movements, the kinæsthetic sensations have a passive character which reflects the mode of their origin; in the case of voluntary movements, on the other hand, the kinæsthetic sensations take on a character of "reduplication" whereby we are enabled to be conscious of (a) the inertia of the muscles, and (b) the volitional force which causes their contraction. But (i) there is, in fact, no such difference between kinæsthetic sensations in the two cases; (ii) confessedly muscular contraction comes about through nervous impulse, and if there be resistance on their part it must be to these impulses; and (iii) muscular movement is certainly taken by the conscious subject, in the great majority of cases, not to be opposed to what seems to him to be his volitional activity but to be part of it.

with urging two considerations : (a) Apart from the circumstance that the "feeling of effort" is not always present in voluntary attention, careful observation has brought to light the fact that in cases where it is present attention usually starts before the "feeling of effort" makes its appearance, and that when the process of attending attains its highest degree of efficiency the "feeling of effort" dies away. One would conclude, therefore, that so far from being a condition of attention it is rather a concomitant, more or less variable, of the process, and that it by no means belongs to its essence. (b) It is evident, I think, that the content we are aware of in the experience described as the "feeling of effort" is composite in character. It involves certainly the awareness of a subjective motive and the idea of an objective change to be produced. The direct experience which we may legitimately assume as lying at its basis is no doubt that which through kinæsthetic sensations we obtain of what is happening in contracted muscles, stretched ligaments, and so on.* When these constituents are removed, we may well inquire, with Bradley, what is left of the consciousness of effort put forth ? In short, I cannot see that the content of which in these experiences we are aware gives us any direct information of the condition of ourselves in such awareness, for we have no more reason for thinking that the consciousness of strain or effort is itself a condition of the strain or effort than we have for thinking that the consciousness of blue is a condition of blue being there in front of us.†

* W. James, *Collected Essays and Reviews*, p. 151 *sqq.*, and *Principles of Psychology*, chapter xxvi. Cf. Bergson, *Essai sur les données*, p. 16 *sqq.*

† Cf. my paper on "The Nature of Willing" (*Proceedings*, N.S., vol. xiii, pp. 57-58), where I have sought to show that, from what we are able to lay down concerning the development of self-consciousness, it is readily explicable how the effort or strain of which we are conscious has come, in our mature experience, to wear for us the appearance of self-activity.

Let me not be misunderstood. Nothing could be farther from my purpose than to imply that willing is not an active process. Every state of mind, be it of the cognitive or of the conative type, is, I should agree, essentially a state of activity. None the less, it seems to me a manifest error to assimilate mental activity to that kind of activity which we ordinarily ascribe to material things, to suppose that "feeling and cognition operate as psychical forces which are analogous to physical forces, except that the latter involve spatial relations."* For, on the one hand, the mental life, the psychical continuant (in Dr. Johnson's phraseology), is obviously not made up, as a material body is, of discrete particles in various conditions of agitation. A rough illustration may be permissible. When a horse pulls a cart, we speak of the horse as active, as exerting force, meaning that the initiation of the cart's movement is due to the horse's pull. But we cannot point to separable entities in the stream of mental process, one of which may thus be said to act and the other to be acted upon. Psychical causality, assuming we are justified in using that expression, is at any rate causality of a kind very different from that of physical causality. And, on the other hand, the relation of the mental act to its object in no way involves that the object is exposed to any exertion of force or energy on the part of the mind. The object is neither attracted nor repelled, nor, so far as is discoverable, in any way affected, by an act of apprehension directed upon it. In volition, it is true, the mental act culminates, or may do, in the conversion of a *faciendum* into a *factum*, but the actual conversion is effected by the bodily and other physical mechanism. In short, there is no evidence either of one mental state acting upon another mental state or of the mind acting upon matter in a manner at

* W. E. Johnson, *Logic*, Part iii, p. 104. Cf. *Proceedings*, N.S., vol. x, 1910, p. 269 *sqq.*

all analogous to that in which one physical entity acts, or appears to act, upon another physical entity.

II.

Thus far our argument has been directed to making good the position that "force" or "energy," as ordinarily understood, is invariably something of which we are conscious, and is wrongly taken to be something either inherent in or characterizing the mental life itself. But, even if this position be sound, it does not, of course, necessarily follow that what we are in such experiences conscious of is a veritable constituent, as it appears to be, of physical reality. For our apprehension is liable in various ways to error, and although we may have excluded the possibility that the error, if in this case there is one, is due to the importation of a subjective feature into the content of what we take to be the physical world, we have not excluded the possibility of our having from other reasons misinterpreted what is presented to us. I shall attempt presently to point to positive grounds for thinking that we are not in this connexion misinterpreting the facts; but, before proceeding, it will be well to say something in reference to an objection that may at this stage be pressed.

"Granted that 'force' or 'energy' is a content cognized and not a condition of psychical existence as such, yet it may still be true," so it might be urged, "that 'force' or 'energy,' as thus cognized, is a purely bodily phenomenon, and that except where physiological processes are in operation is not present in nature." Now, it has, no doubt, at once to be admitted that, in the experience of tension or strain, what through kinæsthetic sensations we are *immediately* conscious of is usually a series of happenings or occurrences in the muscles, tendons and other tissues of the body. But these are, of course, material structures, parts of a complex material system, which is in its turn a part

of the immense material system with which physical science is concerned. Those physiologists who, like Dr. Haldane, insist that the living organism is not merely a physical and chemical mechanism would not question the truth of the proposition that the contraction and relaxation of muscular tissue is due to the strains and stresses in the constituent fibres of which it is composed. Even though relaxation and contraction as they occur in living tissue are subject to guidance and control of a special kind, yet the mechanism by means of which such relaxation or contraction is effected differs, it would be conceded, in no essential way from the mechanism of inorganic substances. Compress a liquid or a compressible solid, and you are conscious of *its* exerting a force of expansion which decreases as the compression is allowed to decrease. Stretch between your two hands an elastic band, and you are conscious of *its* exerting a force of contraction which likewise decreases as the extension is allowed to decrease. I can find no more ground for supposing that these strains and stresses are intra-organic phenomena and not properties of the things they appear to be properties of than for supposing that the movements of the things in question are not their own movements but movements of ours in respect to them. It is true that strains and stresses cannot be apprehended through the organ of sight, while movement can be. Yet, what of that? While no one need be concerned to dispute the tremendous part played by vision in the building up of our knowledge, it would be attributing to it an altogether extravagant pre-eminence over the other senses to regard it as having a monopoly in revealing the characteristics of the external world. Were our experience limited to visual experience, even though supplemented by hearing and organic sensation, the objective scene might present for us a panorama of successive appearances (though I do not think it would); but, without the experience of pressure and resistance, we should assuredly obtain no conception of either

matter or causality. I agree with Mr. Bradley that the experience of resistance is a secondary product and that it is absurd to find in resistance the one manifestation of reality ;* but the fact that it is not the sole manifestation of reality does not prevent it from contributing its share to that manifestation. And it is, I take it, certain that visual apprehension would be a vastly less efficient mode of cognizing than it actually is had it not been developed on the basis of the experience acquired through motor and muscular sensibility.

The supposition that what we are cognizant of as "force" or "energy" is confined to organic phenomena would, it seems to me, necessitate a theory of vitalism, cruder and more untenable than any hitherto suggested. The advocates of a "vital force" or "vital principle" have not hesitated to make use of physical and chemical explanation of physiological processes so far as they could; they have invariably taken for granted, namely, that the "forces" and "modes of energy," differentiated by the physicist, are actually operative in organic structures and account for a great number of the processes which these structures exhibit. Their contention has been that over and above these there is an autonomy of the living organism which is not physically explicable. And, consequently, they have assumed the presence in the living organism of a non-physical influence which co-ordinates, regulates and guides the chemical and physical processes. Dr. Haldane's criticism of this view† will be sufficiently familiar, and I am not now concerned to discuss it. But its difficulties, already formidable, would surely be enhanced, and its unphysiological character be made at once apparent, if it were understood to imply that what we are conscious of as

* *Appearance and Reality*, second edition, pp. 116 and 225.

† See, for example, *Mechanism, Life and Personality*, p. 24 sqq.

stress and strain is, in truth, rightly attributable to "vital force" alone and wrongly extended by us to processes in the inorganic world.

III.

There is, of course, no direct way of proving that strain and stress as we are conscious of them are actual factors of physical nature any more than there is a direct way of proving that colours and sounds are. We can but proceed indirectly, first by showing, if we can, that other and alternative modes of explaining their presence in experience are unsatisfactory and then by attempting to show that those physical theories which either assume or are compatible with the objective reality of these factors are on the whole more coherent and true to fact than those which are incompatible therewith.

That the conception of force is not ultimately a very important one in mechanics, and that the main advantage of retaining it there is for the purpose of making general statements is no doubt true,* and is not in the least surprising. The fundamental law of mechanics, which states how masses move under the influence of given forces, is, as Professor Weyl expresses it, simply a blank schema, which acquires a concrete content only when the concept of force appearing in it is filled in by physics. "The unfortunate attempts which have been made to develop mechanics into an independent science have not," he says, "been able to help themselves out except by converting the fundamental law into

* C. D. Broad, *Scientific Thought*, p. 167. "You may regard the laws of motion as being expressed by equations, with force on one side and rate of change of momentum on the other. You may regard the special laws of nature as being expressed by equations, with forces on one side and the special configurations, electric charges, magnetic properties, etc., of the bodies you are dealing with, on the other. Thus you might just as well express the facts by a single set of equations, directly connecting the configurations, charges, etc., with the change of momentum, and drop the mention of force altogether."

the merely verbal statement that force *signifies* mass \times acceleration.”* On the other hand, in any particular sphere of physical phenomena, such as that of electrostatics, the investigator is, he urges, confronted with the fact of force, and sees how it is determined from the phase-quantities, charge and field, according to a definite law. Assuming that what we directly observe is the motion of matter, it is, he insists, only this entire network of theoretical considerations that is susceptible of experimental proof.

Modern physics takes its rise, I suppose it may be said, from Faraday's striking and characteristic conception of “lines of force.” Profoundly influenced by the atomic theory of Bosovich, Faraday's mind was imbued with the idea that the space surrounding a body was filled with what he named the “force” which that body could communicate to other bodies; and he clearly enunciated the view, upon which in recent years Professor Whitehead has so strongly insisted, that an atom is not confined to the infinitesimal portion of space where its material is supposed to be, but that it extends wherever its action extends. In his great paper “On Static Induction,”† he concentrated attention on the dielectric, the non-conducting medium surrounding electric circuits, and localized the phenomena that occurred mainly in it, not in the conductors as it had been customary to do. He pictured the space surrounding electric and magnetic bodies as filled with “lines of force,” resembling those revealed by iron filings in the presence of a magnet, each “line of force” being conceived as a closed curve that at some part of its length passed through the particular magnet or electro-magnet in question. And a “line of force” could be regarded as forming the axis of what he named a “tube of force,” which was so constituted that the product of

* *Raum, Zeit, Materie*, 4te Aufl., p. 60.

† *Experimental Researches*, vol. i, p. 360 *sqq.*

its cross-section into the magnetic force was constant along its entire length. There cannot be the least doubt that to Faraday at any rate these lines and tubes of force involved that stress and strain were objectively real, and as such fundamental aspects of nature. His truly epoch-making discovery of the action of magnetism upon light-rays enabled him, as he put it, to "illuminate" the lines of magnetic force.

Then came later, and through the labours of many investigators, the development of the doctrine of energy, anticipated in some measure by Faraday's reiterated belief that "the various forms under which the forces of matter are made manifest have one common origin." It was partly due to the circumstance that the steam-engine was coming into general use, and to recognition of its value as being proportional to the work it could do—in other words, the distance through which it could move a body against a definite amount of resistance—that, in England at any rate, the term "energy" came to be substituted for the term "force" in many of the senses that Faraday had employed the latter term. Energy was defined as "the power of doing work, in whatever that power may consist," and work as a transference of energy from one system to another. So soon as potential energy (which, by the way, Helmholtz had named *Spannkraft*) had been distinguished from kinetic energy (first definitely by Rankine in 1853), the principle of the conservation of energy could be formulated—a principle which Clerk Maxwell declared to be "the one generalized statement which is found to be consistent with fact, not in one physical science only, but in all." While, then, Faraday, conceived of electric and magnetic forces as pervading the space surrounding electric or magnetic bodies, Clerk Maxwell likewise conceived of energy, that by which the bodies in question could do work, as pervading this space, or, in some way, stored up in it. Probably he reasoned in some such wise as this. A body, we say, is acted upon by a force,

and in consequence moves so as to acquire energy. But there is as little ground for thinking that this energy is given to it immediately, without reference to the intervening space, as there is for thinking that the force acts at a distance. If, therefore, the energy must enter from the surrounding space, the energy may quite well be in the space; and it may be assumed would have been there even though there had been no body to be acted upon. That a body *is* acted upon indicates, in other words, that either moving through or stored up in the space of its vicinity there is energy, ready to be imparted to it. Thus, Maxwell was led to inquire as to the amount of energy there was in the space surrounding electric and magnetic systems, and as to its distribution; furthermore, he was enabled to determine the relation between the quantity of energy and the force that was being exerted. Not only so. He showed how it was possible to reduce all electric and magnetic phenomena to stresses and motions of a material medium, the former being energy of the potential type, existing in the form of some sort of strain in the medium, the latter being of the kinetic type, energy of translation. In order, however, that either kind of energy should move from one body to another, or from particle to particle of the same body, it was requisite that both kinds should be present. Only when the strain of the medium had, so to speak, been relaxed could the energy be set in motion. And on investigating the rate at which the energy thus set in motion would travel in a particular case—that, namely, in which the electrical disturbances were of an alternating character—he discovered that it coincided with the rate at which light-waves travel, and was thus led to formulate the modern electromagnetic theory of light.

Physicists, as Mr. Bradley would have said, know their own business, and when they insist upon the necessity, for their purpose, of distinguishing force and energy, it would be ridiculous for the philosopher to raise any question. Obviously if force is

to be defined as the change of momentum of a body considered as depending upon its position relative to other bodies it is something very different from that which is expressed by $\frac{1}{2}mv^2$ (i.e., $mv \times v$, not $m \times v^2$). Force, in this sense, is, for example, not conserved; on the contrary it is perpetually appearing and disappearing. Indeed, even when force is taken to be "that which alters the motion of a body," it is still true that it is not identical with what the physicist means by energy. Two bodies tend to move towards each other, and this tendency is spoken of as the force of attraction. If the restraining influence be modified and the tendency becomes realized, the bodies in moving towards each other acquire energy. The energy acquired is not the force alone; but the force is an ingredient of it.

The motive which weighs with physicists in now endeavouring to avoid the notion of force as that which produces change of motion is not far to seek. So soon as the equivalence of energy in its different forms and the fact of its conservation had been established the temptation was strong to confuse energy with force, in the sense just mentioned, and to conceive of force as a separate existent and matter as another separate existent, each possessing the characteristic of indestructibility. But the doctrine of energy, rightly understood, had undermined a conception of that sort. In his classical essay of 1847, Helmholtz protested against the notion of force as something *per se* that acts on matter, and acts across space, or as something lying hidden in material bodies and ready on occasion to leap out of them. "Pure matter would," he said, "be for the rest of nature a thing of indifference, because it would never determine any change either in other matter or in our organs of sense. Pure force would be something that ought to exist and yet again ought not to exist, for the existent we call matter." In nature, he argued, neither the one nor the other of these "pure" entities is to be found; we meet there with matter and

force only in inseparable connexion.* It is, however, one thing to repudiate the notion of force as an entity *per se* and quite another thing to deny that force has objective reality. We are, as Helmholtz said, acquainted with matter only through its activities, but the fact that the activities are its activities does not lessen in the least their claim to be considered real.

If a distinction is to be drawn between space and that which occupies it, and no physical theory of energy has yet contrived to advance a step except on the basis of that distinction, Helmholtz's insistence upon both the duality and the inseparability of matter and force would seem to be incontrovertible. Any occupancy of space, be it even that of a single electron, involves, on the one hand, cohesion of the parts within the space occupied, and, on the other hand, exclusion of parts external to the space occupied. We cannot, that is to say, form any concept of an occupancy of space apart from the idea of mass. But cohesion between the parts of a specific occupant of space implies a mode of force—that which Newton described as *vis insita* and *vis inertiae*. Again, exclusion of parts belonging to other portions of space implies a condition of stress—what Newton described as *vis impressa*. So far Kant's thesis in the *Metaphysische Anfangsgründe der Naturwissenschaft* is justified, namely, that matter, in order to occupy space, must be endowed with the two forces of attraction and repulsion. When, however, Kant goes on to contend that as each part of space is infinitely divisible, so also is each part of matter occupying space infinitely divisible, his argument is, I think, inconsistent with the former position. For, if the conditions of space-occupancy be those just indicated, it follows that we must come ultimately to a particle, such as at present an electron is taken to be, which is indivisible. The parts into which any portion of space may be divided are them-

* *Ueber die Erhaltung der Kraft* (Ostwald's *Klassiker*), p. 4.

selves spaces ; but the parts into which a unit occupant of space could be divided would not themselves be occupants of space, because *ex hypothesi* space is only occupied by their cohesion. There cannot, that is to say, be a force of attraction except between two parts at least ; so that, if the force of attraction be requisite for the material occupation of space, these two parts cannot, taken severally, be material ; the minimum of matter involves their togetherness. In short, the concept of force existing, as it were, *in vacuo* is a pseudo-concept, and cannot really be formed. And the concept of merely passive matter, although it may be formed, is, in truth, equally self-contradictory. The very coherence or consistence of matter, that which we apprehend as resistance, compels us to think of it as active and to guard against confusing its inertia with inertness.

IV.

This conclusion is borne out in a sufficiently striking manner by the revelations as to the nature of atomic structure which have been pouring in upon us during the past twenty years. The old Democritean atom has been relegated to the keeping of the historian more unreservedly than even Helmholtz and his contemporaries could have anticipated ; and the chemical atoms of Dalton have now been shown to be not atoms in the strict sense at all, but complex and loose structures, each consisting of a nucleus, wherein nearly the whole mass is concentrated, and of the much lighter electrons (or, in the case of hydrogen, of one electron) circling round it. As everyone knows, the nucleus is positively charged and the electrons are negatively charged, and thus electrical attraction plays the part in this minute system that gravitation plays in the systems with which the astronomer is concerned. "Between matter, which is the atom, and non-matter, which is radiation, the electron stands," it has been said, "as the connecting link, since it forms part of the structure of

the atom on the one hand, and by its movements in the atom gives rise to radiation on the other hand." The nucleus, with the exception of the nucleus of hydrogen (called a proton), is not, like the electron, indivisible, nor is it merely a collection of protons ; there is strong evidence that it is a collection of protons and electrons. When one thinks of the incredible swiftness of the particles thrown out in radio-activity by the nucleus, one realizes what enormous dynamic agencies are concentrated therein. And when one thinks of what is happening in a single undisturbed hydrogen atom, of the electron spinning round its tiny orbit at a velocity of fourteen hundred miles a second, one is surely brought face to face with the fact that here we have work going on which, as Sommerfeld expresses it, is of a quite different order of magnitude from that of other physical processes. If this does not mean that stress, tension, strain, etc., are real factors belonging to the innermost structure of nature, one is at a loss to understand what it can mean ; to look upon it all as simply " the expression of the metrics of the world " seems to be like substituting mere formulæ for concrete actualities.

I have tried to show the impossibility of conceiving of force as an independent existent, and in reference to that there is no difference of opinion among present-day scientists. Clerk Maxwell was equally convinced in regard to any independent existence of energy. " Energy," he declared, " cannot exist except in connexion with matter," and he would, there is no doubt, have likewise affirmed the truth of the converse of this proposition. But, in recent years, an attempt has been made by an influential school of physicists to conceive of energy as the one ultimate reality of physical nature. Their contention is that the notion of a material substance has been rendered obsolete by the electron theory, that the inertia of matter has been completely superseded by the inertia of energy, that an atom, as a system of protons and electrons, possesses no

material but only "electromagnetic" mass. "It is," says Professor Weyl, "not the electromagnetic field that requires matter as its carrier in order to be able itself to exist, but on the contrary matter is an offspring of the field." And he tries to show that an electron may be looked upon as an "energy-knot"—that is to say, as a region of the field for which the field-quantities and the electrical densities assume tremendously high values—which propagates itself in empty space in a manner no different from that in which a water-wave advances over the surface of the sea, that there is no "one and the same substance" of which at all times the electron is composed.*

The view seems to me untenable for several reasons. In the first place, an "energy-knot" in which "electrical densities" are concentrated is an excessively obscure notion, which seems at any rate to suggest that we are being given back with one hand what has been taken away with the other. The very circumstance that this "energy-knot" can be pulled back by the action of the field in a way in which other parts of the field are not pulled back would appear to indicate that we have here something which is, to say the least, very different from the rest of the field. Density multiplied by volume in space gives us mass; but, then, what is this density, and how does it come to be there? In the second place, the chief argument that is relied on does not strike me as conclusive. It is argued, namely, that while the mass of a material substance would be unchangeable, it has now been proved that the mass of an electron is not unchangeable, but that it rapidly increases when the velocity of the electron approaches the velocity of light-waves. Now, the only ground for saying that the mass of an electron changes is that when its velocity is increased the field surrounding it exerts upon it a greater pull backwards. Yet

* *Op. cit.* p. 183-4.

surely it might quite well do that even though the mass of the electron did remain constant, because the greater pull backwards may, as Professor Sheldon has suggested, be due simply to its increased velocity. In the third place, the positive grounds already given for holding that force is inseparably combined with matter* seem to me applicable here also. Assuming that electrons and protons are atoms in the strict sense, that is to say, are indivisible, then an electron or a proton possesses a *cohesion* which is not a characteristic of anything else. If it moves, it moves as a whole, and no part of it can move while leaving the rest behind. As we have seen, what we mean by a material entity is just this cohesion of parts. In the case of material *aggregates*—chemical atoms, molecules, so-called “things”—such cohesion is relative only; the parts can be torn asunder. In the case of an atom in the strict sense, such cohesion is absolute; the parts can never be torn asunder. The parts are charged with electricity of the same kind, and should, therefore, repel one another; yet none the less they are irresolvably held together. And not only is there cohesion of parts *ad intra*, there is also exclusion of parts *ad extra*. To use again Professor Sheldon’s phraseology, two electrons never fuse into one, neither do two protons; indeed, an electron never fuses with a proton, although they mutually attract each other. What explanation can be given of this behaviour if the electron or proton be regarded as pure energy and nothing else? Waves of radiant energy pass through each other repeatedly; one and the same portion of the electromagnetic field may be occupied at the same time with waves moving in various directions;†

* See *supra*, pp. 95-6.

† I am not unmindful of the fact that the problem of radiation energy is, in this connexion, thrust upon us, and that the question might be raised whether, then, it at least is not energy devoid of material substance. But if radiation energy is in the form of undulatory motion the difficulty of dispensing with some kind of material medium is notorious.

but electrons and protons do not pass through one another. Again, it is this exclusion of parts *ad extra*, no less than the cohesion of parts *ad intra*, that is characteristic of material substance. In short, atomicity—discreteness—differentiates *matter* from the space which it occupies.

“Yes,” it will be objected, “but is not atomicity—discreteness—a determination, as we now know, of energy?” We shall be confronted, namely, with the quantum theory, according to which radiation energy is emitted, and would seem also to be absorbed, not continuously but in definite amounts. Radiation energy goes about, that is to say, in bundles or indivisible units, any one of which contains a specific store of energy, and any one of which can liberate that energy and produce an effect, yet of which no fractions are possible. But there is, so far as I can judge, nothing in this discovery, when rightly interpreted, which at all conflicts with what I have been urging. For, as Professor Nicholson told us at the Reading Congress, the one indubitable fact of the quantum theory is Planck’s constant h , and this is not a constant of energy. While the theory constrains us to think of energy as present only in quanta, yet the quantum depends in each case upon circumstances. That is to say, in any system containing energy there is a “frequency,” and the energy in that system is $h\nu$ (where ν is the frequency), or some whole multiple of it, so that the real constant is the quotient of energy and frequency, or product of energy and time, a constant of what is now called “action.” And this “frequency” would seem to presuppose, in Professor Nicholson’s phrase, “something structural.” In other words, what the constant ratio between energy and frequency appears to involve is not the discontinuous nature of energy as such, but the discontinuous nature of its emission and absorption by the atoms of matter, or rather by the electrons and protons of which such atoms consist. Moreover, what has sometimes been regarded as a difficulty in the quantum

theory—the discrepancy, namely, between the discontinuous process by which energy is emitted from the atom and the continuous process by which it is transmitted in the form of waves—would then at once disappear.

The attempt to conceive of energy as dissociated from material substance and to picture it as an entity *per se* appears to me invariably to lead to one of two results, either of which is in truth inconsistent with the view in question. (a) The dematerialization of matter, as it has been called, has meant in the hands of some physicists, that while energy is declared to be the fundamental reality of which at any rate we are aware, the properties which it has been customary to regard as the properties of matter have been transferred to a hypothetical all-pervading ether in which electrons and protons are supposed to be strains or vortex motions or singularities of some kind. In order that it should be capable of fulfilling its functions there has to be assigned to the ether a whole host of mutually exclusive characteristics. That it should not retard the motion of the heavenly bodies, it must behave as a fluid with a density less than the lightest gas, while in the neighbourhood of electrons it must have a density that is truly enormous, and yet again, in order to transmit the transverse light-vibrations, its behaviour must be that of an elastic solid, endowed with extreme rigidity. Even Sir J. J. Thomson's hypothesis of a mass-producing material made up of particles all of the same kind and excessively small compared with even an electron, these particles moving with the velocity of light, and the distribution of them depending upon the number or concentration of lines of force, would seem to be an ingenious effort to re-introduce the features of which the atom has been deprived. (b) The other alternative culminates in what has been named the materialization of energy. The inertia of the electron is supposed to arise from the energy accumulated around it in the form of fields. The

mass of the electron is taken to be due not to any material substratum which it does not possess, but to its own energy, which constitutes its only substantial reality. In short, energy is endowed with mass and with weight in proportion thereto and with structure; it becomes to all intents and purposes a materialized body, although matter is supposed to be dispensed with. One is reminded of a procedure of a somewhat similar kind on the part of Leibniz, who, although he insisted upon disposing of the Cartesian notion of substance and substituting for it the concept of force, was yet constrained to bring back what he had discarded in so far as he had to recognize an element of passivity within the compass of active force itself.

V.

I will conclude by referring to certain consequences which have been thought to follow from the general theory of relativity. It has been maintained, namely, that if the general theory of relativity be interpreted strictly, the "forces of nature" turn out to be "illusions," and reduce to nothing more than our subjective ideas of what are really special properties of the four-dimensional continuum in which we live our lives. Briefly, the contention, as I understand it, is based on considerations such as the following. Taking first the so-called "force of gravitation," we are bidden, in accordance with relativity principles, to conceive of space in the vicinity of what is familiarly called "matter" as non-Euclidean in character. In other words, space in the neighbourhood of so-called material bodies is to be thought of as "warped" or "curved," although the curvature is to be conceived as curvature in a four-dimensional continuum, in which time forms the fourth dimension. Wherever there is a "warping" or "curvature" of space, there is what we call "matter," and, conversely, wherever there is "matter" there is a "warping" or "curvature" of space. In the presence of "matter" there

must always be a gravitational field, a peculiar kink or twist in space, but "matter" is rather an "outgrowth of the field" than the field a consequence of the existence of "matter." Now, according to Einstein's principle of equivalence, "a gravitational field of force at any point in space is in every way equivalent to an artificial field of force resulting from acceleration, so that no experiment can possibly distinguish between them." Hence the conclusion is drawn that "gravitational force" is a pure fiction, and what is really there is acceleration due to curvature inherent in the continuum. Having thus disposed of gravitational force, it was natural to extend the method to the other "forces" with which the physicist has to deal, and to make an effort to explain these as likewise illusions arising from our faulty mode of interpreting the special metrical properties of the continuum. This, in fact, is what Weyl tries to do in his brilliant and subtle work. He labours to prove that the new curvatures which would be introduced by further generalizing the notion of a continuum are sufficient to account for the properties of electromagnetic fields and electromagnetic forces as we are acquainted with them.

It is not possible to do more here than indicate in the barest manner why intellectual constructions such as these strike me as singularly unconvincing. At the conclusion of his work Weyl has to acknowledge that "the problem of matter is still wrapt in the deepest gloom"; and it can hardly, I think, have escaped notice how the writers who follow the line of thought which I have very inadequately sketched are constantly using phraseology which implies a theory of material substance such as they would explicitly reject. Thus, for example, Mr. J. H. Jeans speaks of "the path of a particle" in the continuum as being simply its "world line"; and of the curvature of path as being "thrust upon the particle by the nature of the continuum."*

* Art. "Relativity," in *Ency. Brit.*, twelfth edition, vol. xxxii, p. 266.

But what are we to understand by a "particle"? Is it a material entity of the kind we have taken electrons and atoms and complexes of them to be? If it is not, the reasoning would appear to break down; if it is, the mere fact that the particle is moving would surely constitute it into an efficient agent of the very type that is repudiated as being illusory. Or, to put the point in another way, while a "particle" is continually being treated as though it were an occupant of the continuum and moving along geodesics in it, what the view really demands is that it should be a part of the continuum, which as such cannot step, as it were, outside the continuum and move along one of its paths.

But the main objection I am concerned to press is that the position I am criticizing throws a burden upon what is described as "our subjective interpretation" which that faculty of ours, whatever it is, is wholly unable to bear. You cannot get rid of an awkward fact by the easy device of proclaiming it to be a subjective illusion. Even an "illusion" has a being of its own, and you are not entitled to treat it as belonging to a sort of no-man's land of which you need take no further notice. In the present instance, if the human mind invariably "interprets" changes in nature as due to the operation of forces, then, even though that interpretation be a misinterpretation, there must be in the objective world that which will account for the interpretation coming to be made and being what it is. And, on the theory before us, if it be understood literally, there is nothing in the objective world which by any conceivable manipulation could render such experience possible. The readiness with which the mind is supposed to be capable of creative functions when in the interests of a theory it is necessary that nature should be regarded as destitute of properties it seems to possess is certainly astonishing. For example, Mr. Jeans, in the very able article to which I have alluded, after asserting that the

apparent "force of gravitation" arises solely from acceleration, and pointing out that acceleration results not only from changes in the amount of a velocity but from a change in its direction also, gives the following illustration to bring out his meaning: "A motor-cyclist riding in a circle at a uniform speed of 60 miles an hour will be the subject of an acceleration towards the centre of the circle. He knows that the apparent force so produced is just as real in its effects as gravitation, and to save himself from falling as a result of its influence he must incline the direction of his machine to the vertical." If, however, the "force" so produced is merely apparent (that is to say, as Mr. Jeans implies, unreal and non-existent), how is it intelligible that it can give rise to effects so unmistakably "real" as those which are here depicted? Certainly, confronted with a theory of this sort, a poet may be allowed to protest,

"If Nature be a phantom, as thou say'st,
A splendid figment and prodigious dream,
To reach the real and true I'll make no haste.
More than content with worlds that only seem."

One of the distinctive features of Professor Whitehead's more philosophical rendering of the theory of relativity consists, I need hardly remind my readers, in his resolute rejection of the view of the non-uniform structure of the four-dimensional continuum, and his insistence upon the necessity of regarding it as homaloidal in character.* It would, therefore, be impossible for Whitehead to acquiesce in the attempt to reduce either matter or force to subjective interpretations of the special properties of the space-time continuum. On the contrary, he expressly refuses to countenance any conception of psychic additions to

* For the grounds of Whitehead's contention see *The Principle of Relativity*, chapters ii, iii and iv, and cf. his Address on "Uniformity and Contingency" (*Proceedings*, N.S., xxi, p. 8).

the objects known in perception, any antithesis between nature as it really is and experiences of it which are purely psychological. For him our experiences of the apparent world are experiences of nature itself; there is but one nature, the nature which is before us in perceptual knowledge. And he would, I take it, agree that just as "the nature which is the fact apprehended in awareness holds within it the greenness of the trees, the song of the birds, the warmth of the sun," etc., so likewise it holds within it that which we denote by such terms as force, activity, strain, stress, tension and the like. Indeed, in his emphasis upon "passage" and "process" as the fundamental characteristics of nature, he is meaning, if I mistake not, to include under these phrases the features with which I have been concerned. I am afraid that the sharp contrast he seems to draw between "objects" and "events" will preclude his concurring with some of the things I have been urging. but I hope the main drift of my argument is not out of harmony with what he has taught us.

*Meeting of the Aristotelian Society at 21, Gower Street, London,
W.C. 1, on Monday, January 19th, 1925, at 8 p.m.*

VI.—PICKWICKIAN SENSES.

W. O. BRIGSTOCKE.

"DIFFLUENT, protopathic!" exclaims A.B.W. in a recent number of *The Times*, "I am baffled by these learned words, and would say, with all due respect to Vernon Lee (or Dr. Head) 'prythee, deliver thyself like a man of this world.'"

The old, old complaint! Philosophers, knowing the immense difficulties of combining accuracy of thought with man-of-this-world deliverance, may say—have said—confidently, that this reproach is, and always has been, absurd.

And yet, if Mr. Russell is right in saying* that the theory of relativity . . . has damaged the traditional notion of substance more than all the arguments of philosophers, how are philosophers to account for that? How is it that physics, with its cryptic other-world language, is more effective than philosophy?

If I may describe the jeopardy of philosophy somewhat bluntly, we have, on the one hand, an insistent demand (based on what must seem to most philosophers unwarrantable self-confidence) for speech that can be understood by men whose acquaintance (if any) with philosophy is only casual. On the other hand, we have what may be (unkindly) described as the futility of the bickerings of hair-splitting philosophers. And in contrast, we have the steady work of physicists, who, though

they do not by any means deliver themselves as men of this world, do manage somehow to move in some direction—making what is called remarkable progress; whereas the progress of philosophers appears (perhaps not only to the uninitiated) to be absorption in a more and more sophisticated word-juggling. And as this age (like Hobbes's) "countenances, if it does not encourage, a sawcie behaviour in men of low degree towards their betters," it can have even less use than most ages for men whose chief occupation seems to be to take word-juggling seriously.

It is, of course, easy to dismiss the whole matter by saying, as Butler did, that "all words are juggles. To call a thing a juggle of words is often a bigger juggle of words than the juggle it is intended to complain of. The question is whether it is a greater juggle than is generally considered fair trading."

But this does not satisfy me, even as a *homo lupsus*, let alone as a philosopher. For I see no reason for abandoning the supposition (accepted by Hobbes, for instance), that philosophers are primarily concerned with the consequences of words. And if the results of philosophic studies are—as they are often said to be—a jargon unintelligible to the general and bitterly questioned by philosophers themselves, is it not pertinent to ask whether an already parlous state of affairs may not be made worse by the adoption of such a novelty as the expression "Pickwickian Senses?"*

* The following is the source:—

"Mr. Blotton (of Aldgate), rose to order. Did the honourable Pickwickian allude to him? (Cries of 'Order,' 'Chair,' 'Yes,' 'No,' 'Go on,' 'Leave off,' etc.)

"Mr. Pickwick would not put up to be put down by clamour. He had alluded to the honourable gentleman. (Great excitement.)

"Mr. Blotton would only say then, that he repelled the hon. gent's

I am not sure that members of this society ever think of such worldly things as examinations. But even if they do not, I think it is only fair to the coming generation to face the fact that a new terror has been added to the austere pleasures of philosophy and that it is now possible for Professors to set the question: "What is meant by Pickwickian Senses?" And as I have no idea what the answer ought to be—and I dare say no one else has—I think we shall not be wasting our time if we decide, once and for all, what is the orthodox answer that students will have to give to get full marks. I will begin by suggesting what I think might be accepted as the answer. The

false and scurrilous accusation, with profound contempt. (Great cheering). The hon. gent. was a humbug. (Immense confusion, and loud cries of 'Chair' and 'Order.')

"Mr. A. Snodgrass rose to order. He threw himself upon the chair. (Hear.) He wished to know whether this disgraceful contest between two members of that club should be allowed to continue. (Hear, hear.)

"The Chairman was quite sure the hon. Pickwickian would withdraw the expression he had just made use of.

"Mr. Blotton, with all possible respect for the chair, was quite sure he would not.

"The Chairman felt it his imperative duty to demand of the honourable gentlemen, whether he had used the expression which had just escaped him in a common sense.

"Mr. Blotton had no hesitation in saying that he had not—he had used the word in its Pickwickian sense. (Hear, hear.) He was bound to acknowledge that, personally, he entertained the highest regard and esteem for the honourable gentleman; he had merely considered him a humbug in a Pickwickian point of view. (Hear, hear.) Mr. Pickwick felt much gratified by the fair, candid, and full explanation of his honourable friend. He begged it to be at once understood, that his own observations had been merely intended to bear a Pickwickian construction. (Cheers)."

The following is an example of Professor Broad's use of the phrase:—

"No doubt it is part of what we mean by a bit of matter that it shall, *in some sense*, have shape, size, and position. But in how literal a sense

discussion will, no doubt, produce other, better, answers. We can then choose.

Little attention seems to be paid by philosophers to grammar and its problems; not many would boast of being more than gentlemanly grammarians. Nearly all work that deals with the relationship between words and thoughts and things soon develops into an exposition of subtle theories expressed in terms that become more and more involved. This in itself would be no drawback, for mere difficulty does not prevent consideration and acceptance. And though I see no reason for supposing that when men discuss science they are any less tenacious of their own point

must this be true? We have already seen that, in some sense, an extension or a duration is composed of points or of instants respectively. But this sense is highly complicated and sophisticated, or, to use a happy phrase of Dr. G. E. Moore's, 'Pickwickian.' Now we shall doubtless be able to find Pickwickian senses in which there are entities that are at once public and extended. The question is: How Pickwickian may the term in our statement become before it ceases to be useful, and becomes merely misleading to say that we accept the existence of matter? Our theological friends have much the same difficulties in their interpretations of the terms that are used in the Creeds. It could obviously only be true in a highly Pickwickian sense that the Second Person of the Trinity is the Son of the First. No one supposes it to be true in the literal sense in which *George V is the son of Edward VII*; and the only substantial point at issue is whether the sense in which it might be true (assuming, for the sake of argument, that the Persons exist) is not so extremely Pickwickian that the statement is more likely to mislead than to enlighten. Fortunately for us, the terminology of our problem is not surrounded with the same emotional fringe as surrounds the terms used in Theology. It is no part of our duty to pay compliments to Matter, and so long as we state clearly what we do mean, it is of little importance whether our terms be used in a literal or in a highly Pickwickian sense. It will be a question of taste whether it shall be said that the theory that we finally adopt amounts to the acceptance or the denial of matter. If we should be accused of saying 'Matter is not Matter,' we shall at least be better off than Dr. F. R. Tennant, who labours under the dreadful imputation of teaching that 'Sin is not Sin.' " *Broad Scientific Thought*, pp. 233-4.

of view, than when they discuss philosophy, it is evident that, for some reason, scientists are more persuasive than philosophers. A student of mathematics or of science would usually feel quite happy if unexpectedly told that he was to be examined by another university instead of his own. How would the student of philosophy feel about it? And I am sure that the man in the street has a lurking feeling that although God Almighty would no doubt get full marks in any Mathematical or Science papers, He might come seriously to grief over Philosophy papers, if set by the wrong man.

Assuming then that there is this remarkable difference between Science and Philosophy, I venture to suggest that it is in no way due to the nature either of philosophers or their subject matter, but that it is entirely due to a failure to recognize that in using language, we are using something that has, as it were, a variable denomination, as money may have. If a man doing business in Germany chose to keep his books without taking into account the fact that marks had not the same value as pounds, he might argue that two always means two, and that two pounds are, in a highly Pickwickian sense, equal to two marks, but his accounts would present the characteristic features not only of the sabres given by the Indian to Vathek, but also of much philosophic writing. And the more subtle the reckoning became, the less would auditors be convinced of their correctness, and the more would the plain customer wonder what it all meant.

Now, just as a figure like 273 may mean 5460 in a different context (as it might in the case of pounds and gold marks), so also words change their meaning fundamentally and irreconcilably according to the "denomination" of their reference. The perplexing arguments about the nature of things, which have so long vexed philosophers, are largely due to the overlooking

of a change of denomination. For instance, if we start an argument about the universe, as we so often do, we shall in next to no time be wondering what is the matter with the other fellow's intelligence, as we so often do. We ignore the difference of denomination of the word "universe." The universe about which we, as scientists, know so much, is a "chocolate universe"; as the tutor of Monsieur de la Jeannotière and many other philosophers have assured us, it doesn't exist. For science consists essentially of a collection of commands which it has been found useful to assume that Nature obeys. This Nature is so remarkably obedient, because scientists take very great pains to issue only those commands which are likely to be obeyed, and to revise any that are disobeyed. On the other hand, all scientists deal as individuals with something so fundamentally different that no command whatever need be obeyed, every item being unique, and, at the best, only that unregenerate sinner, the exception that proves the rule.*

Before trying to state more clearly what I mean by the denominations of language, it will perhaps be best to anticipate the result to which my argument will lead. I suggest that the use of such a phrase as "Pickwickian Senses" proves that philosophy is still baffled by the riddle of language. Such a phrase is a subterfuge, a surrender, an esoteric appeal to faith. And my thesis is that scientific language can never be used significantly in any Pickwickian Sense; and that every deliverance of the man-of-this-world is, and must always be, delivered in a Pickwickian Sense. And I suggest that it is not yet the duty of philosophy to explain the results of combining these two denominations. It has first of all to state clearly what the difference is.

* Every philosopher should be made responsible for the feeding of a new-born baby for three months, in order to make him realise that the scientific "every baby" is only very remotely related to "this baby."

I am not sure how far my thesis is a novelty. So far as I am aware, no one has stated it quite in this way. The writer who seems to come nearest to my point of view is M. Paul Valéry in that very remarkable volume "*Variété*." Others have, I know, made statements that could be quoted in support. But it will be best, I think, to be satisfied with quoting a few passages from the pages of "*Variété*."

Towards the beginning of the volume (page 18) he speaks of "le désordre de notre Europe mentale," and asks "de quoi était fait ce désordre ? De la libre coexistence dans tous les esprits cultivés des idées les plus dissemblables, des principes de vie et de connaissance les plus opposés." I think you will admit that that is true.

On page 106, he describes a conversation he had with M. Fabre. "Nous cherchions à nous expliquer sur la poésie ; et quoique ce genre de conversation passe et repasse très aisément par l'infini, nous arrivions à ne pas nous perdre. C'est que nos pensées différentes, chacune se mouvant et se transformant dans son infranchissable domaine, parvenaient à se conserver une remarquable correspondance. Un vocabulaire commun,—le plus précis qui existe,—nous permettait à chaque instant de ne pas nous mésestimer."

The important point there is the clear distinction made between the "infranchissable domaine" (producing Pickwickian Senses) and the "remarquable correspondance" (where Pickwickian Senses are impossible).

On pages 149-50 he states the difference more clearly : "Nous trouverons donc en nous deux ordres de réponses à la sensation que j'ai décrite, et que nous donnent la vue du ciel et l'imagination de l'univers. Les unes seront spontanées, et les autres élaborées. Elles sont bien différentes, quoiqu'elles puissent se mêler et se combiner dans la même tête ; mais il faut les séparer pour

les définir. On les distingue souvent en attribuant les unes au cœur, les autres à l'esprit. Ces termes sont assez commodes." *

After stating on page 189 that "même notre pensée la plus 'profonde' est contenue dans les conditions invincibles qui font que toute pensée est 'superficielle,'" he describes man (referring specifically to Leonardo da Vinci) as follows: "Il voit comme nous et il voit comme soi. Il a un jugement de sa nature et un sentiment de son artifice. Il est absent et présent . . .

"La conscience . . . vient donc à soupçonner toute la réalité accoutumée de n'être qu'une solution, parmi bien d'autres, de problèmes universels. Elle s'assure que les choses pourraient être assez différentes de ce qu'elles sont, sans qu'elle-même fût très différente de ce qu'elle est. Elle ose considérer son 'corps' et son 'monde' comme des restrictions presque arbitraires imposées à l'étendue de sa fonction. Elle voit qu'elle répond, non à un monde, mais à quelque système de degré plus élevé dont les éléments soient des mondes. Elle est capable de plus de combinaisons internes qu'il n'en faut pour vivre; de plus de rigueur que toute occasion pratique n'en requiert et n'en supporte; elle se juge plus profonde que l'abîme même de la vie et de la mort animales: et ce regard sur sa condition ne peut réagir sur elle-même, tant elle s'est reculée et placée hors de tout, et tant elle s'est appliquée à ne jamais figurer dans quoi que ce soit qu'elle puisse concevoir ou se répondre. Ce n'est plus qu'un corps noir qui tout absorbe et ne rend rien

"Encore un peu, et elle ne compterait plus comme existences nécessaires que deux entités essentiellement inconnues: Soi

* Nous sentons dans un monde, nous pensons, nous nommons dans un autre; nous pouvons entre les deux établir une concordance, mais non combler l'intervalle. (M. Proust.)

et X. Toutes deux abstraites de tout, impliquées dans tout, impliquant tout. Egales et consubstantielles. . . .

“Le caractère de l’homme est la conscience ; et celui de la conscience, une perpétuelle exhaustion, un détachement sans repos et sans exception de tout ce qu’y paraît, quoi qui paraisse. Acte inépuisable, indépendant de la qualité comme de la quantité des choses apparues, et par lequel l’homme de l’esprit doit enfin se réduire sciemment à un refus indéfini d’être quoi que ce soit.”

I have quoted at some length—I hope not too fully—because these passages express in man-of-this-world deliverance what I now propose to express more technically.

It is generally assumed that it is sufficient to assert “*vel tu mihi aias vel negetur*.” I suggest that it is necessary to add “*vel tu nobis aias vel negetur*,” where “*nobis*” stands for some body of corporate opinion, such as Mathematics. The former represents language used by individuals—Pickwickian Senses: the latter, language used by bodies of specialists speaking in the name of some Science, and basing arguments on definitions. The former is based on the fundamental assumption “*nonnullus sum*”: the arguments of the latter are all based (as M. Valéry points out) on an imaginary zero about which is grouped everything relevant, “*nullum et cetera*.” The former might be expressed by “*sentio et sane sapio*”: the latter by “*sane sapio et sentio*”: and the “*sentio*” of the first refers to what is usually called “*reality*,” the “*sentio*” of the latter to the chocolate “*reality*” of such fictions as the average, the solar system or Euclidian space: and the “*sane*” of the former is common sense, the “*sane*” of the latter the logical implications of definitions. And the most conspicuous difference is perhaps most conveniently described as a difference of “*direction*”: the former being an inward looking towards the central individual, where the weight of the

argument and interest falls on the "et ego"; in the latter the direction is from the zero outwards, with the weight of the argument and interest on the "et cetera."

I base my contention on the fact that all knowledge is, so far as I can see, primarily a negation. We know by means of the differences between our "object" and another object used as a reference. What we know about "this" is that it differs in such and such ways from "that." Pushing our analysis to the utmost, we find ourselves with two ultimate criteria, namely: when we are taking a subjective view, our individual self, which is an ephemeral (though, for the individual, permanent) standard for negative knowledge: when we are taking what is known as a scientific view, a zero which serves as the basis of some scale and gives us that impersonal knowledge of how every thing differs --for convenience from any other thing but ultimately from nothing.

Thus my knowledge of another man may be of two kinds, and my language will always have to be interpreted accordingly; either I am judging the man as part of my personal universe and in that case he will have X as his characteristics: or I am judging him on some scale and he will then have Y as his characteristics. So also the number 11 as viewed from 10 must differ from 11 as viewed from 0.

It will generally be conceded that much of our thinking is egocentric; and that a considerable portion of the words used are meant to be interpreted in that sense. I suggest that it is to this thinking that the term "Pickwickian Senses" should be limited. It will be far less readily conceded that all scientific knowledge is (1) negative, *i.e.*, it tells what is not; (2) reference to a zero, *i.e.*, it must always have reference to a scale (using the word scale in the widest sense) of which the ultimate foundation is always NOTHING.

But worse heresies than this have in the past been advanced, derided and finally accepted. And I suggest that if Philosophy could once accept this (as it seems to me) fundamental distinction, we should no longer have to admit that our studies are what Dr. G. E. Moore says they are*: "But I am sorry to say that I have not yet reached the end of my explanations as to what my meaning is. I am afraid that the subject may seem tedious. I can assure you that I have found it excessively tedious to try to make my meaning clear to myself. I have constantly found that I was confusing one question with another, and that, where I had thought I had a good reason for some assertion, I had in reality no good reason. But I may perhaps remind you that this question, "How do we know so and so?" "What reason have we for believing it?" is one of which philosophy is full, and one to which the most various answers have been given. Philosophy largely consists in giving reasons: and the question what are good reasons for a particular conclusion and what are bad, is one upon which philosophers have disagreed as much as on any other question. For one and the same conclusion, different philosophers have given not only different, but incompatible reasons: and conversely different philosophers have maintained that one and the same fact is a reason for incompatible conclusions. We are apt, I think, sometimes to pay too little attention to this fact. . . .

"When I ask: What reason have *we* for believing in the existence of other people? a certain ambiguity is introduced by the use of the plural 'we.'"

Here Dr. Moore actually states the point which I am trying to emphasize. It is the ambiguity of "we" that shows the

difficulty most clearly.* Once recognize that when WE (one man) deliver ourselves (*i.e.*, one self) we always do so in Pickwickian Senses; and that when WE (mathematicians, etc.) deliver ourselves (*i.e.*, as representatives of an imaginary zero and its system) it is never in Pickwickian Senses—once we admit that, the way will be free for an analysis of the uses and the limitations of language, that may once more convince the world that philosophers are usefully concerned with the consequences of words.

* Darwin wrote: "When we reflect on the vast diversity of the plants and animals which have been cultivated and which have varied during all ages under the most different climates and treatment, I think we are driven to conclude . . ." Who or what is this we that reflects and is driven to conclude? The same question arises when *we* is called IT, *e.g.*, Weyl's translators (*Space, Time, Matter*) make him say: "Since the Human Mind first awakened from slumber, and was allowed to give itself free rein, it has never ceased to feel the profoundly mysterious nature of time consciousness"

*Meeting of the Aristotelian Society at 21, Gower Street, London,
W.C. 1, on February 2nd, 1925, at 8 p.m.*

VII.—VALUES AND TEMPORAL EXPERIENCE.

By G. H. LANGLEY.

BESIDES the experiences in which we are aware of objects and events and of the characters which determine them, we also possess experiences of appreciation and approval and of their opposites. The latter imply judgments of value and these differ fundamentally from the judgments whereby we affirm the existence of objects and events. Appreciation and approval imply a certain relation to the conative mental tendencies of the individual. Valuable objects or events are those that give gratification to the individual, and valuable experiences those that satisfy. Apart from relations of this kind to mental processes there are no values. It does not follow, however, that values are subjective. On the contrary, it is apparent that any individual in judging an event or experience to be beautiful, true, or good, is not determined by personal interest. He is entirely disinterested and feels bound to appreciate precisely in the way in which he does.

Further, the experience of values forms an important part of life, and we are thus obliged to analyse it carefully and to consider its implications. It is evident that the direction of a person's life is determined very largely by the values which he experiences. Whenever an event or experience is apprehended as of value, he will endeavour to create the conditions under which similar events and similar experiences become present; whereas there will be a tendency to avoid situations which involve the presence of events and experiences that are disapproved.

It has been argued that many systems of thought have been vitiated by giving undue importance to the experience of values, and that it is the business of the philosopher to relegate the experience of values to its place in Reality which is evolving from simpler forms of being. While admitting the importance

of this contention, I am of opinion that it may not be possible to deduce the experience of values in this way, and that careful analysis of the various types of such experience may indicate that other assumptions are necessary.

Nevertheless I wish to emphasize a point for which the philosophers referred to above seem to me to be contending. They endeavour to account for a progress which is real, and to avoid the assumptions of the Absolutists wherein Reality is thought to be a perfected and completed system. One purpose of this paper is to point out how values necessarily imply unique, temporal, changing, human experiences. Since Plato there have been thinkers who have endeavoured to prove the eternity of values, and now groups of thinkers have arisen who endeavour to explain values as merely an advanced stage in the development of some primary and relatively simple stuff. We shall seek to show the necessity for values being realized in actual human experiences, although at the same time we feel compelled also to admit that they possess a certain eternal character. A clear recognition of the nature of temporally valuable experiences, however, will demonstrate that the eternal values are of the nature of creative powers which cannot be thought apart from the changing temporal experiences to which they inevitably give rise.

My meaning will become more clear if we consider briefly the essential features of the three main types of values, namely : -- beauty, truth, and goodness.

I.

First, let us try to analyse the experience of the beautiful. At the risk of occupying disproportionate space I will describe an actual experience of natural beauty in order to deduce therefrom its essential features.

In May of last year I was resting with a few friends in a little bungalow at 12,000 feet in the Himalayas. One day towards evening we descended from the bungalow for a

short distance down the mountain side, through an avenue of rhododendrons in full bloom. The rhododendrons were a blaze of colour, ranging from white to deep red. The branches were covered with moss and lichens, and the ground was overlaid with a carpet of rich, soft, and delicate moss. After a while we passed into a small oval-shaped glade where the earth was covered with spongy green turf studded with delightful tiny white and yellow flowers. This glade was completely surrounded by the fine rhododendron bushes. Standing on the higher part of the slope, one could see beyond the rhododendrons to the mountain ridges on the north side. Upon these were great dark boulders and in places they were covered with storm-swept pine trees. The latter were charred and black. There were a few leaves upon their lower branches, but the upper branches were bare, and the leafless trunks projected towards the heavens. There they stood blasted by the lightning of many generations : monuments to the fierceness of wind and storm. In the still greater distance was ridge after ridge of mountains separated by immense valleys, until finally the eye rested upon the perpetual snows. The purest of white clouds were filling many of the valleys and encircling some of the higher mountains. The evening was calm, and no sound was heard save the music of birds. The sun was declining ; and the lofty snow-capped peaks, the clouds, and the valleys were becoming bathed in the evening light. We gazed in silence—deeply impressed by the delicate beauty, the immensity, the splendour ; by the union of power and of terrible fierceness with glory and sublimity ; and by the most wonderful charm of colour and of form. The fierceness and the kindness of Nature were intermingled there. In her minutest parts she was so perfectly beautiful, and in her great expanses so glorious and sublime. It was so apparent that she could assert herself in irresistible might ; and yet she was silently expanding herself, clothed in beauty, splendour, and calm.

On the occasion which is described in the above paragraph, we (the percipients) were in the presence of a scene which inevitably called forth æsthetic appreciation. The appreciation was stimulated by certain characters which Nature herself possessed, but it is evident that these would not have created the æsthetic experience had there not been developed in the percipients a certain capacity for appreciation. The æsthetic value of objects or events may, therefore, be defined somewhat as follows. Those characteristics of objects or events are æsthetically valuable which, when apprehended by percipients who possess the requisite capacity, have the power to create in these percipients the experience of æsthetic appreciation. The capacity in the percipients is as necessary for this experience as the characters of the objects or events.

It may be well to note the objective characters of the above scene upon which the æsthetic appreciation depends. I think it will be agreed that they are somewhat as follows: (1) The delicacy and perfection in form and tinting of the mountains, clouds, moss, and flowers. (2) The vastness of the valleys and the ridges, and the strength of the great boulders and the towering mountains; all of which are evidence of immensity and power, and of a power asserted so calmly and so silently. (3) The qualities of the objects which produce a transition in imagination from what is perceived to events which have passed and may recur; such, for instance, as the charred bareness of the blasted pines, which suggests the terror of lightning and storm. (4) The marvellous union of beauty with splendour and power; the charm of the glade beside the blasted pine trees and the great boulders, and the immense mountains and clouds suffused with the most beautiful tints from the setting sun.

It is clear from the above that æsthetic appreciation does imply characters in objects and events that are æsthetically valuable. The percipient in the act of appreciation is disinterested. He feels bound to appreciate because of certain real characters of the situation with which he is compresent. But these objective

characters do not reside in the objects or events in precisely the same way as the characters which qualify their existence. An object is blue for all who possess normal vision, but it is beautiful only for those who possess the requisite power of appreciation. And, besides, some objects, such as the storm-swept pine trees, are æsthetically valuable because they are symbols representing to the imagination characters that are not immediately present in the situation. While, however, the objective character of æsthetic values is beyond dispute, it is also clear that objective characters can only be considered to possess intrinsic æsthetic value when they have power to create in the percipient æsthetically valuable experiences. These unique subjective experiences are essential to value, for apart from them no object or event can be considered valuable. Further, such subjective experiences are valuable despite the fact that they are transitory. The appreciation is inseparable from the experience, the percipient endeavours to produce situations in which similar experiences will be enjoyed, and the possession of an experience strengthens the capacity in the percipient to appreciate similar situations.

In the above description we find united what Kant would describe as the sublime and the beautiful. We admit that these may be distinguished, and that the quality of the mental experience regarded as sublime differs from that which is regarded as beautiful. For Kant the sublime suggests the idea of power or immensity which transcends any possible representation by the human imagination, whereas beauty consists in harmony between the concepts of the understanding and the representations of the imagination. But as indicated above beauty and sublimity are intermingled in nature. The tiniest moss plant, when minutely examined, may reveal the idea of a creative power transcending in its perfection any power which the human imagination can represent. Thus may beauty and sublimity be united in so minute an object. The fact which is important for our purpose

is that both types of objects create in certain percipients the enjoyment of æsthetically valuable experiences.

When we turn to the consideration of the appreciation of works of art two important facts become clear. First, the object apprehended as æsthetically valuable is ultimately a spiritual force; and, secondly, the valuable experience to which this leads in the percipient may be partly the creation of his imagination. To illustrate the latter point first, in the perception of a seascape by Turner, the motion, the irresistible power, and the great distance are not characters of the object; but the object is such that it creates the impressions of these in the imagination of the percipient. Further, and this is the first point, the percipient is able truly to appreciate only in so far as his perception enables him to create in imagination an experience which is in part identical with that to which Turner gave expression. Turner's picture represents an object as it was present in his own creative imagination. His creation is not merely subjective. It is true to Nature, being conditioned by qualities, forms, and powers present in Nature. It is also conditioned by the nature of the materials with which he works, as well as by the traditions of his art that have been handed down to him*. Nevertheless, using these conditions, he expresses a representation living in his imagination. In other words, the expression is of a moment in the life of his spirit. Thus, when apprehending the picture truly, the percipient passes beyond the perception of the representation on the canvas to the appreciation of what was present in Turner's imagination; to the appreciation, that is, of a certain moment of Turner's creative power. It follows, then, that the object apprehended is ultimately a spiritual force and that the representation on the canvas is a symbol of this force. Further, this spiritual

* This is very apparent from the study of architectural forms such as the Gothic or Mogul arch, where the development of the form can be traced in buildings belonging to different periods. Here the creative act of the architect is conditioned by the form which is handed down to him.

force is apprehended only in so far as its symbol creates in the percipient an experience partially identical with that of the artist.

We have taken a single illustration, but the analysis is, I believe, true of all works of art. By some of these works the spiritual experience of the artist, and by others the objective determination, is emphasized. In all, however, both are present. A fine representation of the Buddha is obviously an attempt to represent a certain type of spiritual experience; a portrait by Rembrandt, on the other hand, is a far more faithful representation of some actual human being. Despite this, however, the Buddha is conditioned by the human form and by convention, and the Rembrandt is a creation of the imagination. The appreciation of both implies the presence in the percipient of experiences partially identical with those of the artist when creating them.

Now that we have seen that the object of æsthetic appreciation revealed in works of art is ultimately a spiritual force, we may possibly be inclined to agree with the poet when he traces the beauty and sublimity of Nature to a similar source.

" . . . I have felt
A presence that disturbs me with the joy
Of elevated thoughts; a sense sublime
Of something far more deeply interfused,
Whose dwelling is the light of setting suns,
And the round ocean and the living air,
And the blue sky, and in the mind of man:
A motion and a spirit, that impels
All thinking things, all objects of all thought,
And rolls through all things."

Referring again to the scene that we have described above, is not our æsthetic appreciation due in large measure to the overwhelming sense of such a power?

So far, in these remarks on æsthetic values, we have only considered the appreciation of the works of the painter and of Nature. The principles deduced appear to me to apply also to the appreciation of sculpture and of architecture, as well as to the

appreciation of poetry and music. As certain features of poetry and music make our meaning more clear we will mention these here.

In poetry the medium of expression is a system of symbols which bear little similarity to the objects which they represent. For this reason the representation of a different type of object is possible. The novelist and the dramatist represent persons as they develop under varying influences, and the poet represents Nature in her varying moods and wider expanses. It is therefore the more evident that, although that which is judged to possess æsthetic value is objectively determined, there must be features therein which cannot be present independent of mind. In the act of appreciation we must pass beyond the symbols to the apprehension of the creation as it was present in the imagination of the poet or novelist. Here it is still more apparent that the true object of appreciation is a spiritual power which becomes known through the images which it produces.

Music differs from poetry in that it is confined more exclusively to the expression of emotions and moods, and the medium of expression is not merely symbolic but bears a certain relation to the emotions and moods expressed. In the act of appreciation emotions are aroused in the percipient which are similar to those that were originally present in the composer. These are of value because they are enjoyed and because the percipient will seek situations in which similar emotions are possible.

We will conclude this section by stating briefly the subjective and the objective elements of æsthetic values.

First as to the subjective element. An object or event possesses æsthetic value only in so far as it has power to produce in the percipient an intrinsically valuable experience. Such objects or events do not produce this kind of experience in all individuals, and they do not produce it in any individual at all times and under all circumstances. On the other hand, some æsthetic experiences of the greatest value are only possessed by the few. The power of æsthetic appreciation is a capacity that

has evolved and is still evolving, and for this reason there is great diversity in the æsthetic judgments of different communities and of different ages. Further, it is clear that æsthetic appreciation may vary in a single person with his changes of mood. Thus we are convinced that there is an element, vital to all æsthetic values, which is unique, changing and temporal in character; and that, whatever eternal or objective qualities values may possess, they must be such as enable us to explain these intrinsically valuable temporal experiences.

Turning to the objective element in æsthetic values, we find that æsthetic appreciation is disinterested. In judging an object to be beautiful we feel that we have no option, and that we are obliged to recognize its beauty because of its objective character and because of the universal character of the experience which it produces in us. The judgment may not be universal in the sense that everybody possesses it or is able to possess it, but we believe it to be universal because we are convinced that every man whose inherent capacity for æsthetic appreciation is developed would, in a similar situation, be obliged to make a similar judgment. There may then be truth in the old conviction that beauty is eternal. For Plato and Plotinus the beautiful is apprehended by "nous," and beauty is an "eidos" or "logos." They do not explain, as we are endeavouring to explain, the essential reference of values to temporal experience: but if their conceptions are interpreted dynamically, they are not altogether different from our own. Æsthetic appreciation is the result of the compresence of an essential power of the human mind with another spiritual power. If aught in æsthetic values is eternal it must be these creative powers. It may be that by concentration upon the gratification of personal desire we often prevent these powers from functioning as they should, nevertheless we believe that they belong essentially to the developed human mind. It is impossible to define such powers precisely, for we only know them through their expressions in the series of

æsthetically valuable experiences that we enjoy. As we have indicated, however, these expressions are connected essentially with the powers mentioned, and it follows therefore that knowledge of the expressions is partial knowledge of the powers which they manifest.

II.

When we pass to the consideration of cognitive value we find that subjective temporal experience is still a vital element. I shall, therefore, now explain what appear to me to be the essentially subjective features of this type of value.

In the first place, truth or falsity is an attribute, not of objects or events, but of our judgments or convictions concerning these. There is a sense in which an object is beautiful, but there is no sense in which it is true or false. Our judgment about the object must be either true or false, but the object itself merely *is*.

Secondly, the judgments themselves are uniquely determined in a way that is frequently overlooked. We may term this unique determination the psychological character of the judgment. Think of a simple judgment such as: "twice two is four." Such a judgment must be differently determined for (a) a child who has just learned the significance of numbers, (b) an average intelligent adult, and (c) a competent mathematician. The possession of this concept by any individual implies that he has discerned the universal content in certain of his particular experiences, but the particular experiences in each of the above instances differ very widely, and the memories of these experiences interpenetrate and give significance to the apprehension of the concept. For this reason the concept for the three persons mentioned above must be uniquely determined in different ways. The concepts as apprehended by each of the individuals may all be true, but they are not therefore identical. The concepts are true because they represent the apprehension of some actual character which is pervading some actual situation

or situations, but the situations are not the same in each case. The child is responding to a very limited part of the environment that is immediately presented to him, whereas the situation for the mathematician includes his conceptions of number and of space, and, it may be, much beyond these which is vitally related thereto. It is evident, then, that the actual qualities pervading these situations which are apprehended must be different; and, further, as mentioned above, these apprehensions are interpenetrated by different memories.

Finally, the subjectivity is further emphasized by an examination of the reason for the value of truth. The experience of apprehending a true judgment is an experience of which we are immediately aware as being of value. But wherein does this value consist? I believe that the answer to this question is contained in the fact of the solidarity of the speculative and the practical functioning of the human mind which is insisted on by Croce. True apprehension of a situation implies appropriate responsiveness thereto. It may be urged that in maintaining this position we are attributing to truth a merely pragmatic significance and value, and that we are asserting that truth is of value simply because it enables us fittingly to respond to our environment: and, against this, it may be argued that all who really value truth seek it for its own sake, without respect to practical consequences. Those who seek truth for personal advantage, it may be maintained, are not likely to come to a deep and full appreciation thereof. We agree that this is the case. Personal and practical interests limit the power to apprehend the truth. If, for example, knowledge is sought as a means to position and power, such knowledge, when obtained, may enable the seeker to attain his end and so to adjust himself to his environment; but the environment is very limited, being restricted by personal interest. When, however, truth is sought for its own sake, there is no such limiting of the environment. The acquiring of truth, that is, the discerning of

the universal features in the situation which is present, necessarily expands the situation or the environment to which the subject may respond. But appreciation of truth for its own sake does not mean that truth is valued apart from any responsiveness to the environment of which it is the apprehension. Plato described the apprehension of truth as the turning of the eye of the soul towards the light, and at the same time he recognized that it implied the harmonizing of the soul's activity with the eternal Reality which is the object of its contemplation. So we contend that perfect insight into the nature of the universe around us necessarily implies the perfect adjustment of our lives thereto. Herein lies the truth of the belief that eternal or perfect life is to know God, and of the teaching of so many Eastern religions that salvation is attained only by knowledge.* But it is not necessary to enforce this point by insisting upon its application to religious experience. All advance in the knowledge of scientific principles is advance in the perfecting of our adjustment to the world in which we live, and the absence of such adjustment is proof that the principles are not rightly understood. This holds also of our knowledge of the simple situations which immediately confront us. If we do not respond to these fittingly, it is absurd to contend that we apprehend them accurately. Thus the contrast between seeking knowledge for some definite purpose and seeking the truth for its own sake is not a contrast between knowledge which leads to practical activity and knowledge which does not; but between knowledge which leads to a restricted kind of activity, the nature of which is predetermined by personal interest, and knowledge which itself determines the nature of the practical response. In the latter case, since insight determines response, the response must be adequate and appropriate.

The reason why cognitive value implies subjectivity will now

* The term "knowledge" here connotes apprehension of the eternal spiritual reality of the "self" and the "universe," and not cognition of spatial and temporal objects.

be apparent. Cognitive value consists in appropriate responses, and a response is always to a unique situation. The situation may be the tiny fragment of the world with which we are immediately present in sense perception; or it may be an expansive environment which includes the moral and spiritual forces pervading the universe; or, again, it may be a situation which is anywhere intermediate between these extremes. But whatever the nature of the situation it must be unique and the acts whereby the mind responds thereto must also be unique. Thus the truth value is discovered within these unique responses that are present in the individual's experience.

In three respects, then, cognitive value is subjective. First, truth pertains to judgment; secondly, the concept as apprehended is uniquely determined; and, thirdly, the true apprehension of a situation implies the unique response of the individual thereto.

Despite such subjectivity, however, it is apparent that truth is universal and necessary and that the philosopher is obliged to attempt an explanation of these features. It seems to me that the ground for the universality and necessity of truth is to be found in the fact that the individual, in so far as he judges truly, is aware of a character or characters that actually pervade that part of the environment which is compresent with him. Thus since the mind, in true apprehension, is apprehending existing pervasive characters; all other minds, in so far as they are directed to the same situation or to similar situations, become aware of the same pervasive characters, that is of the same universals. The content apprehended is entirely outside the control of the individual. He is obliged to think it simply because it is pervading the situation and presents itself to him. In this connexion I will refer again to Plato. For him truth consists in the comprehension of the Ideas by "nous," that is the comprehension of an eternal reality by an eternal spiritual principle. We are again unable to accept his mode of statement, but, as before, find it suggestive of the right explanation. The power by which

truth is apprehended is a universal power which belongs to all developed finite minds, and the object apprehended is a universal content which pervades the present situation, and, it may be, much of the universe with which this connects. If we inquire further into the nature of these pervasive characters we shall be obliged to interpret them as powers present in the universe which, when compresent with the universal power in the human mind, produce in the latter certain kinds of awareness. Here also, then, it appears that we have an example of the compresence of universal powers which gives rise to series of unique, subjective and temporal experiences. Further, it is clear that the latter are essential for cognitive value.

III.

A study of the good leads to the same conclusion. Value in this sphere also necessarily implies subjective temporal experiences. Such experiences may be of value because of the presence of certain universal characters, but these, in their turn, do not exist apart from the series of temporal experiences in which they must be continually expressed.

We will discriminate the "good" from the "morally good," and will first describe briefly the good.

An object or event is good when it is such that it contributes to the gratification of desire. No object or event is good in itself, merely as existing; it is only good by virtue of relations into which it may enter with human minds. Whatever is good is of course so far of value; but it is clear from the above that the object which is essentially valuable is the person, and that objects and events are only indirectly valuable as aids to the fulfilment of active tendencies in persons. Value, then, is seen here again to connect vitally with series of unique and temporal experiences.

Analysis of the moral good shows that the need for the subjective experience is still more evident. We say "This rose is beautiful," "This apple is good," and although these judgments

imply appreciation and gratification, they are passed upon the objects. In the case of the morally good, however, judgment is not passed upon the object, but upon the act of will, or—as we would prefer to describe it—upon the response of the individual to the situation. The analogy is with cognitive value, for, as indicated above, truth has reference to the judgment and not to the object.

I would define the moral good as appropriate voluntary response to situations. In a paper entitled "An Analysis of Moral Consciousness," I have defined situation as that part of the environment to which an individual reacts, and have pointed out that the most important part of the situation for a moral act is the individuals or groups of individuals which it includes. A person—I have there maintained—is a spiritual unity including complexes of inherited and acquired active tendencies. He naturally responds immediately to the present situation, but, by virtue of the possession of consciousness, he possesses the power to delay his response. Further, he is endowed with the power of practical reason whereby he is able to apprehend the situation. Since the situation for a moral response includes persons it cannot be adequately apprehended by speculative reason. I have, therefore, endeavoured to show how practical reason includes the power to enter into a sympathetic relation with the situation as well as the power of speculative reason. The apprehension of a situation by practical reason reveals the appropriate response in that situation, and this may possibly be opposed to the response to which the person is immediately and naturally inclined. Whenever this is the case the person is aware of the appropriate response revealed by practical reason as right, and he feels under obligation to identify his will with it. He is aware of such responses as being of moral value.

In the above-mentioned paper I have explained the way in which moral goodness is objectively determined, first, by the objective character of the situation—a situation which is often

very extensive, including nations and international groups; and secondly, by the objective character of the person who acts. If the contentions of the paper, however, are justified, it must follow that the universality and objectivity of morality are without meaning apart from the unique experiences in which the individual responds to the situations presented to him. Not only are such situations unique but they are constantly changing. By the response which the individual makes he inevitably changes both the situation and himself. It follows, therefore, that if the moral good is to be enjoyed at all it must be enjoyed in series of unique experiences wherein changing individuals respond to changing situations. A good that is not so enjoyed can have no value. Temperance and justice may be good, and as such may be of value. They are not, however, of value as mere conceptions, but only in so far as they are expressed in the just and temperate acts of this or that person as he responds to the situations that become present with him.

From this description of moral goodness it is evident that there is close affinity between moral values and cognitive values. In our opinion truth is of value because it enables the possessor to respond appropriately to his environment. Goodness is such fitting response. We have, however, suggested that speculative reason is inadequate for giving that complete insight into the situation which should precede the morally good act. Further, although the value of truth connects with goodness, it must be borne in mind that truth itself is distinct therefrom.

Having shown the need of subjective experience for moral values, it is important to remember, as we hinted above, that they are objective. Moral values imply series of uniquely good acts, but such acts are not of value as particular. It is clear that any particular response of an individual to a situation may be either good or bad. Therefore the character which differentiates the particular experience that is good from that which is without moral value must be universal. For this reason not only does

the individual feel under obligation to identify his will with the good, but he is convinced that any other individual when in a similar situation will be confronted with a like obligation.

Further, I am convinced that the feature of universality must be interpreted in this sphere also as a spiritual force. All good experiences are temporal and changing, and if there be aught within them that is not in like manner subject to change, it must be the creative power of which they are the expression. Justice, for instance, must be a force, which when present in situations of a certain type, produces just acts. Series of good experiences can only be explained by the compresence of spiritual forces. Not only does such a force reside in the person who experiences the good, but in his experience he is responding to forces that are influencing him from within the situation. The most important part of the situation for a moral act is, as stated above, the persons or communities of persons which it includes. It is a dynamic and not a static existence. The objection may be raised that a similar explanation also holds for bad and non-moral experience. I admit that this is the case. Nevertheless I hold that the fact of moral values and of the obligation to prefer them does give some indication of the character of the spiritual forces upon which they are founded.

In this connexion it may be well to insist upon the fact that ultimately the object of moral value is the person. It has been pointed out that the good must be realized in actual situations and also that the situations are ever changing. If, then, the acts of any individual are to be uniformly good, he must possess the power of constant readjustment to series of rapidly changing situations. His responses to many of these will be consciously determined, but to many others response will be spontaneous and unconscious. Thus it is important for the realizing of the good that the spiritual unity of the person be such as will enable him spontaneously to respond in the right way to the unforeseen situations that may at any time become present. And, further,

should the effort be made to discriminate what is permanent from what is transitory in any person's moral experience, the permanent would be found to reside somewhere in the spiritual force that is vital to personality.

IV.

Let us now endeavour to state briefly the conclusions of this study.

All values, although universal, imply of necessity unique, temporal, and changing experiences. These are not, however, valued as particular experiences. As such they may be without value.

When we inquire for the source of value in temporal experiences, we first find this in an intrinsic quality of the experiences themselves. Certain of our experiences are enjoyed by us as intrinsically valuable. To possess them is to be conscious of their value. When they are present we endeavour to enjoy them as long as possible: and, since they are transitory, we seek from time to time to create situations in which similar experiences are possible. Mr. Shand, in a very valuable article on "Emotion and Value,"* explains this truth in reference to the intrinsic value of certain emotions. Such emotions as love and joy are characterised by the fact that we seek to protect their objects and thus to retain the emotions; and they contrast with others such as anger, hatred and fear, the objects of which we attend to and retain only so long as they are useful for some external end. Mr. Shand's explanation appears to be too exclusively in terms of the emotions, for value has reference to the whole of experience and not to any one aspect of it such as is suggested by the term emotion. I think Mr. Shand would have recognized this if he had paid greater attention to the explanation of cognitive values, in which sphere it seems to me that the value is not essentially connected with the emotional character of the

* Emotion and Value. By A. F. Shand. Proceedings of the Aristotelian Society. New Series—Vol. XIX. 1918-19.

experience. But his view is very important as insisting on the intrinsic value of a person's temporal experiences. We are immediately conscious of the intrinsic value of certain of these, and seek to retain them in the only way that temporal experiences can be retained, viz., by creating the conditions in which they can be repeatedly enjoyed.

Another way of stating this truth is to say that certain kinds of temporal experience are part of the fulfilment of ends which are vital to persons. We have described a person as a spiritual unity including complexes of conative tendencies. Such tendencies, we believe, are not disconnected. They should centre round a main direction which is determined by the nature of the spiritual forces in relation to which the individual has been brought into being. Value experiences, whether æsthetic, cognitive, or moral and religious, belong to the fulfilment of this dominant end. I know there is a danger in this mode of teleological explanation. At first sight it appears to contradict the view that temporal experiences may be intrinsically valuable. It may be maintained that intrinsic value belongs only to the ends or purposes of persons, and that temporal experiences only become indirectly of value when they contribute to the gratification of these ends. This assumption, however, is an entire misconception of the meaning. In it ends are separated entirely from the means for their fulfilment, and this is not possible. Temporal value experiences are not merely *means* to the fulfilment of ends, they are *part* of this fulfilment. The kingdom of God for the individual is within him and not in the remote future. So far as we are able to judge, the chief end of personal existence is that it should be a succession of valuable experiences.

In explaining the value of temporal experiences, we are not denying the objective or even the eternal character of values, but we are insisting upon a dynamic interpretation of whatever is objective or eternal therein. Our study has shown that if there is aught that is eternal in values, it is of the nature of a

creative power. In the spheres of beauty, of truth, and of goodness, we discovered that the respective value experiences were the result of the compresence of the universal power present in the individual mind with powers present in the situation. For this reason the series of temporarily valuable experiences, which are the manifestations of the compresence of such powers, are the necessary correlate of the powers themselves. There is probably often a confusion in our conception, due to the transference of the idea of permanence, which we derive from sense perception, to our conception of these creative forces. When we say that a rock is permanent, we mean that it resists the natural forces which tend to change it. Here, also, there is evidence of power, but we concentrate on the unchanging form. So the eternal for us becomes associated with absence of change. The study of values points to the need for explaining their objectivity and universality, not by "absence of change," but by creative power which is necessarily the source of change.

Finally, we should note briefly the interdependence of values. It is not possible to separate beauty from truth, or truth from goodness, or, indeed, any one value from any other. Oftentimes we feel that what is false is also bad or ugly, and we feel too that there is vital connexion between the respective convictions. The beauty of a work of art, such as a novel, cannot be separated from its truth. Further, we have seen how the apprehension of the true necessarily determines the good. Plato conceived all the ideas, which for him represented values, as ultimately united in the good. We also are compelled to admit the unity of values; and, since values are powers, such unity must be in some supreme power that makes for all that is best in life. This is—I admit—a belief based on the appreciation of values, and not an inference from the knowledge of facts. Since, however, the appreciation of values forms a most important part of human experience, this belief is certainly justified.

*Meeting of the Aristotelian Society at 21, Gower Street, London,
W.C., on Monday, February 16th, 1925, at 8 p.m.*

VIII.—THE NATURE OF CONSCIOUSNESS FROM THE PSYCHOLOGICAL POINT OF VIEW.

By JAMES DREVER.

THE main object of this paper is to clear up the sense in which the word "consciousness" must be employed and understood by the psychologist, and incidentally to point out how this sense affects certain important philosophical and psychological problems, with reference to which there has been, and is, somewhat acute controversy. The main contention of the paper can be put very briefly and at the outset of the discussion. It is this: consciousness is not an entity, but merely a character belonging to certain phenomena of life, and the starting-point of the psychologist is not consciousness, or even conscious process, but the behaviour of the living organism.

The second of these statements may seem at once to label the writer "behaviourist." Possibly; but do not let us be over-hasty in our judgment. There are few professed psychologists at the present time who are not prepared to accept the definition of psychology as the science which studies the behaviour of the living organism and attempts to understand and interpret that behaviour from the standpoint, and in terms, of the inner conscious life of the organism. If that is behaviourism, then we are practically all behaviourists together.

What do we mean by the "behaviour of the living organism?"

So long as an organism is living—it ceases to be an organism when it dies—it exhibits behaviour. From a certain point of view behaviour might be held to cover all its activities. Theoretically, however, its activities can be classified under two heads: (1), those activities concerned in the carrying on of vital functions, that is to say, those functions—digestion and the like—that are involved in the maintenance of its life; and (2), those activities that are concerned in the carrying out of adaptive functions—functions involved in its adaptation to environing conditions. What we call the behaviour of the organism covers more particularly those activities belonging to the second group.

Just as the physiological basis of an organism's digestive functions is its digestive system, so the physiological basis of its adaptive functions is its psycho-organic system. Where such a system is differentiated in the structure of the organism it consists of three parts, a part immediately concerned in making the adaptive response, a part concerned in receiving the stimuli from the external situation in the environment towards which the response is made, and a part connecting these two. Each part consists of cells specialized for its particular function, receptor cells specialized for receiving different kinds of stimulus—the sense organs—effector cells for making different kinds and forms of response—the muscles and glands—connecting cells by means of which waves of excitation may pass from the one to the other—the neurones of the nervous system. The adaptive functions of the organism begin with the reception of the stimulus. Hence regarded from its physiological side, the behaviour of the organism begins with the activity of the receptor cells. In these cells physiological processes are initiated by the stimuli from without—speaking of the usual case—and there is physiological continuity between such processes and the processes in the effector cells, upon which the observable external behaviour of the organism

depends. The physiologist's analytical account of behaviour would describe the physiological processes in the receptor cells, in the neurones, and in the effector cells. Even for the physiologist the total response of the organism is obviously not confined to the activity of the muscles and glands. Whether the activity be explicit or implicit, to use Watson's phraseology, the response of the organism begins with the processes in the receptor cells.

But the behaviour of the living organism as such it is not the physiologist's business to study. His task begins and ends with the functioning of the individual mechanisms. I do not wish to put the discussion on a metaphysical basis, at least at its present stage. The argument can be pursued on a purely biological basis. The biologist, even with a bias in favour of physiological explanation, is forced to confess that he cannot explain or understand the behaviour of the living organism in terms of the functioning of physiological mechanisms, whatever measure of continuity he may be able to trace. We have each of us a unique opportunity of knowing one living organism directly and intimately. We have, as it were, an inside view of the behaviour of one living organism. In and through this inside view we know that the total response of the organism, beginning with the physiological processes in the receptor cells, involves conscious processes, and that it can only be understood as behaviour in terms of these very processes.

This is where the psychologist comes in with respect to the study of the behaviour of the living organism. The processes we designate conscious are phases of the total response of the organism, and essential phases. They are as much phases of the response as are the actions observable by all, or the physiological processes observed by the physiologist. And if the behaviour is to be understood as behaviour, it is only through, and in terms of them that it can be understood.

It will be at once objected by certain scientists, and by certain philosophers also, that the point of view of biological science, and of all science, is necessarily objective, and that conscious processes cannot be observed from an objective point of view. Overt actions and physiological processes constitute behaviour, so far as it can be objectively observed, in the human being as in the lowest organism. The existence of conscious process is not denied as the inner aspect of behaviour, but the scientific study of behaviour must exclude that aspect. Hence there is either no science of psychology at all, or psychology must confine itself to the description of behaviour as it can be objectively observed, and abandon the practice of interpreting behaviour in terms of conscious process.

We may pause a moment to consider this objection. The first and main part of it appears to rest on a misconception. Let us imagine an observer capable of observing the behaviour of the human being in all its phases, inclusive of the conscious processes involved. Such a hypothetical observer could evidently realize the ideal of science, because for him the whole fact would be an objective fact. Hence, so far as we can approach the point of view of such an observer, so far do we approach the ideal of science in the study of human behaviour. Now this is the point of view which the psychology of the present is tending more and more to substitute for the subjective point of view of the older introspective psychology. Conscious process is itself regarded, as it were, objectively, and described as it would appear from the point of view of our hypothetical observer. It is regarded and described as a unique type of integration or synthesis, integrating or synthesizing the life forces of the organism and the factors external to these forces by which they are conditioned.

But it is important to remember that this does not involve the abandonment of introspection as a psychological method.

Nothing can ever take the place of introspection, because not only is conscious process a unique type of integration, but it is also unique in another respect—it implies, and is, an inside view of the event. Just because conscious process is an inside view of the event, introspection can furnish us with relevant information, obtainable in no other way, concerning the behaviour of one living organism. We are thus enabled to utilize the results of introspection in a science of psychology, which has advanced from the purely descriptive to the explanatory stage, and advanced along the lines of biological science rather than of speculative philosophy.

Let me put explicitly and succinctly this central position at which we have arrived. "Consciousness" is a character belonging to certain processes in the living organism. These processes, with other processes of a different order—physical, chemical, and physiological—constitute the organism's behaviour. The key to the understanding of the behaviour, however, we find in the conscious processes alone. Hence the need for a science of psychology. The character "consciousness" may be described objectively as an integration of internal and external factors—internal and external as far as life itself, in the concrete, is concerned. In its essential nature it implies also an inside view of the event—the event being, as we have seen, an essential phase or aspect of an organism's behaviour.

Let us see next how certain controversies of the day look from this standpoint. We shall be introduced to the first of these controversies by considering how this standpoint is related to the standpoints of the pure introspectionist and the extreme behaviourist respectively, and in what respects it is more satisfactory than either. Both of these current types of psychological standpoint perpetuate, though in different ways and directions, the distinction made fundamental for modern philosophical thought by Descartes, between mind as a thinking substance

and body as that which is extended. The introspectionist, carrying on the direct line of development from Descartes, through the psychology of the 18th century, tends to oppose the subject-matter of his science, as inner, subjective, and directly apprehended, to the subject-matter of the physical and natural sciences, as objective, and to be conceived as existing independently of the experience in and through which it is apprehended. He regards it as the province of psychology, therefore, to describe only the inner or subjective aspect of behaviour--the "enjoyment" which accompanies, or is correlated with, the behaviour. The extreme behaviourist, starting from the standpoint of the physical and natural sciences, accepting that standpoint as laid down for these sciences, and taking the introspectionist at his own valuation, urges that this psychology is to-day an anachronism, that what the man in the street and the biologist are primarily concerned with is behaviour, and, since this *can* be studied objectively, that the true scientific psychology is the study of behaviour without any reference to the inner aspect whatsoever.

The result of the clash of these two points of view has been most unfortunate for biology. Animal behaviour has been conceived in a narrow and artificial way. As a direct consequence biological phenomena have been crushed into a mould adapted for the physical sciences, and facts which refused to conform to such a mould have been simply hacked off and ignored. In fine, the application of what I will venture to call a false logic of science has made it impossible for biology to describe, to discuss, or to understand the behaviour of the living organism in any complete sense. The only course open to the biologist appears to be to return to the whole fact as he finds it, and frankly to adopt that point of view, and that method of procedure, which will enable him to deal with the whole fact. The first step towards this would seem to be the adoption of that view of conscious process which has been advocated.

At this point, however, the extreme behaviourist's objection may take a new, and, superficially regarded, a more cogent form. Admitting that animal behaviour has an inner aspect, he may argue that this aspect necessarily remains unknown to us except so far as we can interpret it from our own experience, and the validity of such interpretation becomes less and less the farther removed the animal organism, with which we are dealing, is from the human being. Is it not obvious then, he may say, that when we are dealing with the behaviour of the lower organisms, and possibly when we are dealing with the behaviour of organisms fairly high up the scale, the danger involved in the interpretation of the inner aspect of behaviour on the basis of human experience far outweighs any assistance we may hope to derive from such interpretation? I venture to maintain that, with the proper safeguards, this is not the case. Further, without such interpretation the biologist has on his hands an indeterminate x which he is unable to interpret at all, and which on his own showing is of first-rate importance for any useful interpretation. Thus several students of the behaviour of lower organisms—Jennings, Heron-Allen, and others—have to confess that many facts and phenomena can be best described and characterized in psychological terms.

With proper safeguards, what possible objection can there be to the employment of psychological terms in such cases, if the facts warrant and demand them? Of course it is contended that to employ them would be simply anthropomorphism, and not scientific. But anthropomorphism is the naïve reading of the unanalysed man into the brute or the inanimate object. This that we propose is not anthropomorphism. Even if it were, anthropomorphism would be more hopeful than "hylomorphism" for the understanding of the behaviour of a living organism. It is surely incumbent on the scientist who makes such an objection to show why in this particular case the only

line of evidence which is of value must be excluded. Further, he ought to show this without an appeal to the analogy of the physical sciences. The analogy begs the whole question.

Leaving now biology, let us pass on to philosophy. If we take psychology as the science which studies the behaviour of the living organism and attempts to understand this behaviour in terms of the inner conscious life, is it not clear, it may be asked, that a fundamental problem for psychology will arise in connexion with the relation of external behaviour to this inner conscious life? In the past this problem has led over almost inevitably into the problem of the relation of body and mind, and what at the outset was ostensibly a psychological problem has passed over into a metaphysical problem, upon which the solution of the psychological problem is made dependent. As far as the science of psychology is concerned, this must be written off as a dead loss. So much so, that modern psychologists tend to fight shy of the problem altogether. Now it must be freely granted that the relation of body and mind does not present a problem for psychology. The psychologist as such recognizes neither body nor mind as concrete entities; his concrete entity is the living organism.

The reason why the apparent psychological problem came to be discussed as a metaphysical problem is fairly obvious. The living organism was conceived as "body" plus "mind." Or perhaps we should say, the human being was so conceived, for the human being was until comparatively recently the sole centre of interest for psychology. This naïve dualism was not challenged at its origin but only in its metaphysical issues. At its origin, however, it is clearly as baseless as it is naïve. The concrete fact, for science and for philosophy alike, is not a union in some incomprehensible way of two separate entities, a "body" and a "mind." The concrete fact is the living organism, externally observable as a body with other bodies in space, but sharply

differentiated in various ways from other bodies which are lifeless, and internally observable, in the case of the human being, by each individual in, through, and to the limits of his own experience or conscious process. The living organism, as observed from the outside, is not a body in the sense in which body is opposed to mind, nor, observed from the inside, is it a mind in the sense in which mind is opposed to body. In fact, neither the mind nor the body, opposed to one another, has any existence save as an abstraction. All this is so obvious from the modern psychological standpoint that we cannot help wondering how other views could ever have prevailed. A glance, however, at some of the older text-books of psychology makes everything clear as daylight. Psychology is defined as the science which studies conscious process. Conscious process is a real process, or event, or fact. But conscious process refers beyond itself to that of which we are conscious. Thus two different orders of fact are involved. We see a tree. The seeing is a fact in the universe, as is also the tree. Psychology is concerned with the first, which is known directly. But it must apparently show how this fact is related to the second fact which is known indirectly through the first. The psychophysical problem immediately emerges. Even though it is evidently an epistemological problem, rather than a psychological one, the psychologist feels it incumbent upon him to discuss it with reference to what he takes—but takes wrongly—to be his psychological data.

But a question has been asked which is not yet disposed of. The setting aside of the problem of the relation of body and mind, as not being a psychological problem, by no means divests the psychologist of his responsibility with regard to this question regarding the relation between the phenomena of the inner conscious life, which each individual knows directly in himself, but cannot know directly except in himself, and the external behaviour which is open to the observation of the world. The

psychologist, starting with the behaviour of the living organism, escapes the epistemological pitfall with the interminable controversies to which it is the entrance. That is so much gained. The view of consciousness which has been advanced carries us even farther. The behaviour of the living organism is its total response at any moment to the various factors or conditions affecting its own life activities, to what we call a situation. There is still a dualism—living organism and situation—but it is a biological or psychological, not an epistemological or metaphysical, dualism, and moreover it represents ultimate fact, so far as the psychologist is concerned. At that point his world ends. The behaviour with which he starts necessarily involves organism and situation; take away either and there is no behaviour. But this dualism is resolved in conscious process itself, as integrative. And between conscious process and external behaviour there is no dualism. Both are aspects of one concrete fact. The consciousness is simply the inner or inside view of the event.

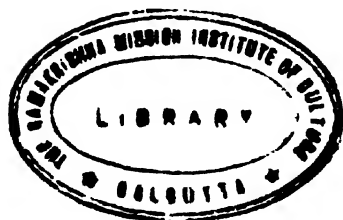
Some other points are deserving of notice. "Consciousness" being taken in the sense assigned, the question may be asked: is there a psychological "unconscious," and if so, what is its nature? The answer is that there is a psychological "unconscious," but it is of a different order from the psychological "conscious." Conscious process is a real process or event; the "unconscious" in psychology is a conceptual construction for explanatory purposes. An organism's behaviour and conscious processes may be regarded as determined on the one side by environmental factors and configurations—situations. But they are also determined by inner factors and configurations, of which the physiologist can only give a partial account, and sometimes not even that. If we speak provisionally of the sum total of the conscious processes constituting an individual's experience as his mental life, then we should say that conscious

processes are conditioned by inner factors of the kind designated "dispositions" in recent psychology. Interests, prejudices, complexes, might be cited as illustrations. These are parts or elements of the make-up or structure of the organism, on what, from our provisional point of view, we are calling the mental side. Without reference to these we cannot explain the course taken by the mental life and the behaviour in any particular case. They are the concern of the psychologist. They are not conscious. Hence we should include them in the psychological "unconscious." It is at any rate certain that the physiologist can give no account of them, and that they are not even necessary for his explanation of events, so far as it goes, whereas they are necessary for the psychologist's explanation.

But there are also *processes* which, in the meantime at least, must be included under the head of the psychological "unconscious." Freud, you will remember, speaks of processes in the unconscious which from their nature can never become conscious. There can be no doubt whatever that we must assume such in order to explain events. We must assume interaction between the structural elements just noted. One common case of such interaction is seen in the operation of associative bonds. But this is only a special case. The living organism is a unity. Hence any modification taking place in any individual cell in the living organism must affect the activity of every other cell to a greater or less extent. We can frequently trace the effects in the physiological sphere. Similarly the elements of an individual's mental make-up, whether we regard them as neural or mental structures, must be regarded as parts of the structure of a living organism. As such they cannot but interact with one another, inhibiting, facilitating, modifying the influence of one another. Again we can trace the effects, this time in the psychological sphere. When a strong love sentiment develops—and as it develops—it profoundly modifies not merely the behaviour

of the individual, but his whole attitude towards the object, and sometimes to other objects also, in ways that can only be explained in terms of the psychological "unconscious."

In conclusion, permit me to say that I believe the points which I have raised, particularly with regard to the psychological meaning of "consciousness," are of importance, not only to the science of psychology itself, but also to epistemology and to philosophy generally. Whatever structures we rear on an analysis of this or that conscious process must be prepared to meet a challenge based on the nature of consciousness as a character of the concrete fact or event.



*Meeting of the Aristotelian Society at 21, Gower Street, London,
W.C. 1, on March 16th, 1925, at 8 p.m.*

IX.—THE NATURE AND AIMS OF A PHILOSOPHY OF HISTORY.

By R. G. COLLINGWOOD.

I.—*What the philosophy of history is not.*

THERE are two inquiries which, for various reasons, have claimed the title of philosophy of history, and have, as I hope to show, claimed it illegitimately. First, the attempt has been made to discover general laws which govern the course of history: laws concerning the successive forms assumed by constitutions: the alternation of high and low, or advancing and declining, civilizations; the implications of a special degree of excellence in art, in religion, in warfare, in commerce; and so forth. These laws are conceived naturalistically; that is to say, as eternal and unchanging truths of which the various events recorded in history are instances; and their discovery is said to be the task of the philosophy of history.

Secondly, the attempt has been made to discover in history not so much an exemplification of eternal abstract laws as the progressive working-out of a single concrete plan; a plan in which every historical incident has an unique place and fulfils an unique purpose, instead of being merely one of an indefinite number of cases in which a law has been exemplified. The

philosophy of history, from this point of view, is regarded as the attempt to discover in history some such plan, to trace its development, and to show how the various phases of historical change, as known to us, have tended towards its realization : to see history as the unfolding of a cosmic drama.

(a) The first of these undertakings aims at the erection of a superstructure of generalizations based upon historical facts. It assumes that the facts have been finally settled by historians ; and using these facts as material for inductions, it proceeds to determine the abstract and universal laws which govern their occurrence.

Now this conception is based upon a reality which we shall discuss below ; but as it stands it is entirely illusory. First, it is based on a false assumption ; the alleged facts upon which it builds its inductions are actually never secure enough to bear the weight that is put upon them, because there is no given fact upon which at any given moment historical research has said the last word, and it is just those " facts " which are most valuable to this kind of philosophy that are most open to question. Secondly, its conclusions are not abstract universal laws, because they are statements about a contingent and transitory subject-matter : generalizations which pretend to be true of all history are, as a matter of fact, true only of certain phases in history. And, thirdly, it ignores just that which most fundamentally characterizes history, namely, its individuality ; it treats, as if they were mere recurring instances of a principle, facts which are in reality unique. In all these three ways it shows the most radical misunderstanding of history that could possibly be imagined.

But it is based upon a reality ; and this reality is the fact that within the body of historical thought itself, not erected upon it as a superstructure but contained within itself as a subordinate but necessary element, generalization and inductive thinking have an important place. Historical research cannot proceed

without using its own previous results as materials upon which to generalize in order thereby to help itself in the determination of fresh facts. Actual historical thinking is a constant alternation of the general and the individual, the individual as end and the general as means. No historical fact can be determined without the help of generalizations ; thus it is only through inductive study of ancient pottery that a man can recognize the presence of a Roman villa in his garden. This inductive study is itself based on ascertained facts ; but these facts in their turn are never at any given moment finally ascertained ; for instance, the discovery of this Roman villa may bring into question doctrines hitherto generally accepted as to the provenance and date of some kinds of pottery. The determination of facts and the using of them as material for generalizations are not two separate and independent activities, one history and the other the philosophy of history ; they are two interlocking and interacting elements in history itself. By adequate attention to its own generalizing element history becomes scientific ; but by trying to separate the two elements and giving one to the historian and the other to the scientist we get a history that is scandalously unscientific and a science (which may call itself a philosophy if it likes) that is scandalously unhistorical.

(b) In the second sense, the philosophy of history has been conceived as the deciphering of a plan which is working itself out in the historical process. We need not take the word plan literally. To do that would be to assume that someone, presumably God, has, so to speak, written in advance the play which in the history of the world he is producing. Such a drastic theological determinism is not likely to find supporters to-day, and therefore it need not be attacked. The plan which is revealed in history is a plan which does not pre-exist to its own revelation ; history is a drama, but an extemporized drama, co-operatively extemporized by its own performers.

This is a view of history which I, for one, am prepared to defend. To deny it would involve asserting that history consists of an indefinite series of atomic events, each wholly devoid of connexion with those which happen before and after; or an indefinite number of simultaneous series of this kind, if we may nowadays use the word simultaneous. But this is neither more nor less plausible than to assert that *Paradise Lost* consists of a series of words none of which has any connexion with the word before it or the word after it. There might be such a series of words; and the fact that Milton wrote this particular series does not prove that it is not such a series, for Milton might have been a person who spent his time "dabbling" for words in a dictionary and putting them down in that order. The way in which we know that *Paradise Lost* is an organized and coherent whole is by reading it and seeing that it is such a whole; and the way we know that history is an organized and coherent whole is by studying history and seeing the connexions between event and event. There is in history a necessary relation between one event and another; and the more closely one studies any period of history the more clearly one sees it as a whole whose parts mutually condition one another, the antecedents being necessary if the consequents are to exist, and the consequents necessary if the antecedents are to be understood. The period thus reveals itself to the historian as a drama in the sense of an organized and coherent whole of events; and if it is suggested that this is a mere illusion incidental to the historian's point of view, it is at least odd that historians should be, as the suggestion implies, the people who know least about history.

But if the parts have a plot, the whole must have a plot; for the parts are only fragments of the whole, not self-contained entities; and their fragmentariness visibly detracts from, instead of enhancing, the coherence of each. A long period of history hangs together better than a short; and the loose ends which

are left in the plot of any given period are knit up in the fabric of its context. History as a whole, if only we could know it as a whole, would certainly reveal itself as infinitely more coherent and systematic, infinitely more pervaded by a plot, than any mere period of history.

But to read this plot is not the philosophy of history. It is simply history. If it is the historian's work to discover the details, it cannot be anybody's work but the historian's to discover the interconnexion of the details. This is true on whatever scale we are working ; if it is for the historian to see the plot of the Norman Conquest or the French Revolution, it is equally for the historian to see the plot of all history as known to us. In fact, the history and the plot of the history are not two things but one thing ; to know history and to know its plot are the work not of two kinds of men but of one.

On the other hand, when we speak of the plot of a story we sometimes mean not the whole story in all its details but an abstract of the story, in which some incidents are omitted and some retained. Such an abstract is not the story but a mutilated version of the story, and its plot is therefore not the real plot of the story but a mutilated version of the plot. Yet it may be a useful expedient towards the comprehension of the real plot. On first approaching a story one may be unable to see the wood for the trees, one may be at first overwhelmed by that very luxuriance of detail which, when one has mastered it, will prove so illuminating. There are, for instance, novelists whose books are obscure not through any fault of imagination or technique, but just because of their virtues ; writers who are "difficult" because they see the significance of details which to a less penetrating eye appear meaningless. The reader, in learning to understand such a writer, is helped by being given a simplified outline of the story ; an outline in which everything is omitted except the incidents whose significance he can grasp. With this in his head, he returns

to the book and finds that the hitherto unrelated and meaningless details fall into place round the fixed points which his simplified outline has given him, so that the whole thing now becomes coherent. This simplified outline is not the plot, but only a preliminary sketch of the plot ; a skeleton, we might say, but that metaphor is inadequate because the bones of a skeleton really support the flesh, whereas there is no distinction in principle between those incidents which are included in the outline and those which are not, except that the person for whom the outline is constructed finds the significance of the one easier to understand than the significance of the other. There is no real distinction of greater and less importance in history ; history *hat weder Kern noch Schale* ; the "crucial" incidents are only those whose crucial character we happen to be able to see.

The real plot of history, then, is coincident with universal history in all its extent and with all its profusion of detail. Omit any part, truncate the course of history or eviscerate some of its detail, and you mutilate the plot, imparting to it a false emphasis and misrepresenting its general significance. But such mutilations and misrepresentations, which are in practice inevitable, are in theory explained by the limits of the historian's intelligence. The ablest and most accomplished historian is only an historian *in fieri*, a man struggling to become an historian ; no one can deserve the monstrous flattery of having it said that he saw life whole. But because every historian is trying to see history as a whole, he must form, from time to time, some view as to the character of its skeleton : some working hypothesis as to the things especially worth noticing, especially crucial in their revelation of the nature of the process in which they occur. In reality, as we have said, history has no skeleton ; when we fully understand any historical event, each element in it appears as crucial as the rest ; but the optical illusion that it has a skeleton is inevitably generated by our own ignorance.

The idea of a philosophy of history in the sense of a plot or scheme of history as a whole thus turns out to be ambiguous. If the plot is a real and concrete plot, like the plot of a novel, if, that is to say, it is the coherence of all history into a single whole, then this plot is nothing apart from the details in which it is embodied ; the plot and the details coincide, and what was called the philosophy of history turns out to be simply history. If, on the other hand, the so-called plot of history is a selection of incidents regarded as peculiarly significant, related to history as the quotations in the analytical programme are related to a symphony, then it is neither history nor philosophy but an expedient for assisting the historical studies of a generation labouring under a particular kind of ignorance. Thus, the Marxian economic interpretation of history was legitimate and in its day valuable if it implied no more than an emphasis on the need for studying economic history ; but if it is a " philosophical " doctrine to the effect that economic facts are the only facts of fundamental importance, and form the *real* skeleton of history, it is simply a philosophical blunder.

In the two accepted senses of the phrase, philosophy of history thus proves a misnomer. The generalizing science of history is an illusion, except in so far as all history already contains in itself elements of generalization as a necessary moment of its own process. The attempt to extract a plot from the details of history is an illusion, because the plot and the details coincide, and any plot obtained by omission of some details and emphasis on others is precisely not the plot of history but a falsified version of that plot. But of these two conceptions, though both are false, the second is an advance on the first. To look for a plot in history means seeing history in its individuality, seeing every incident in it as an irreplaceable and unique element in an irreplaceable and unique whole ; whereas looking in history for instances of general laws means failing to grasp the indi-

viduality of history and seeing every incident in it as a mere reduplication of a ready-made type, and the whole as a chaotic assemblage of such reduplications. This abstract universality is sometimes imagined to be an advance on the individuality of history, but the opposite is really the case, because the individual represents not mere particularity but the synthesis of universal and particular. In other words, to see the historical individual as unique and irreplaceable does not exclude seeing it as an instance of a rule : on the contrary, it just consists in seeing it as an instance of a rule and at the same time recognizing that it is more than a mere instance. Hence the attempt to lay bare the plot of universal history by leaving out the unimportant parts is a failure indeed, but shows a truer grasp on the meaning of history than the attempt to discover laws which the course of history recurrently exemplifies.

II.—*What the philosophy of history is.*

To all actual historians, the philosophy of history, in either of the two senses examined above, is an object of derision ; and I do not think this derision is unjust. If someone who calls himself a philosopher tries to erect inductive generalizations upon a basis of historical facts, the historian will say to him : “ The facts upon which you are building are hopelessly insecure. Many of them are matters of debate ; many are vouched for only by persons anxious to maintain, or unconsciously influenced by, theories like your own ; and in proportion as you restrict your premisses to facts well attested and generally admitted, your conclusions pass into truisms.” If, on the other hand, the philosopher tries to extract from among historical facts the most important, he will reply, “ They may seem the most important to you, but they don't to me : and the reason why you think them so important is only that the others have failed to impress you with the quite

equal importance which in reality they possess." Both philosophies, the historian feels, are based on bad history, on misunderstanding the nature and status of what goes by the name of historical fact.

This feeling on the part of historians is fully vindicated by a closer analysis. Both philosophies make a common assumption and draw from it a common inference; and not only is the assumption unsound but the inference does not follow from it. The assumption is that there exists a body of wholly ascertained historical fact which they can use as material; the inference is that therefore they can construct something out of this material which will throw new light on the nature of the historical facts.

To take the inference first: if the aim of historical thinking is to ascertain historical facts, then everything that can be said about those facts, as facts, falls within the scope of historical inquiry; for until everything that can legitimately be said about them has been said, they are not wholly ascertained. Every question about an historical fact is by definition an historical question. Therefore if a fact has been wholly ascertained, if the historian has finished with it, nothing more can be said about it. Hence the philosophy of history has nothing to do; it can, *ex vi terminorum*, throw no new light on the facts; and it must confine itself to mutilating them or playing with them. And indeed, of the two philosophies of history we have criticized, one does nothing except shuffle the facts, the other does nothing except mutilate them.

But what of the assumption? Is it true that there is in existence a body of wholly ascertained historical fact? It might appear that there was; for instance, it is not likely to be questioned that the battle of Hastings was fought in 1066. But if this fact is said to be ascertained, what is the fact? What, in other words, is or was the event whose name is the battle of Hastings? The

question may refer to the tactics of the battle, or to its political significance, to go no further. Now on both these heads we know something ; but no one supposes that we know all that there is to know. In other words, when we speak of the battle of Hastings we are speaking not of something known but of something partly known and partly unknown ; and the confidence with which we speak of it is like the confidence with which we read a label on a bottle and say " this is arsenic," without anything like an accurate knowledge of what arsenic is. Lord Kelvin, to a student who claimed to know what electricity was, replied, " I wish I did " ; and that is what anyone who had closely studied the eleventh century would say to a person who claimed to know what the battle of Hastings was. In the phrase " the battle of Hastings was fought in 1066," the battle of Hastings is a label for something which, no doubt, did happen in that year ; but no one knows, no one ever has known, and no one ever will know what exactly it was that happened. This doctrine is not scepticism ; for scepticism implies that no one opinion is preferable to any other ; and it is certainly possible to choose between different historical views, to show that Freeman's account of the Norman Conquest is defective, for instance, without implying that one knows all there is to be known about it oneself. In other words, no fact ever has been wholly ascertained, but a fact may be progressively ascertained ; as the labour of historians goes forward, they come to know more and more about the facts, and to reject with greater and greater confidence a number of mistaken accounts of them ; but no historical statement can ever express the complete truth about any single fact.

This is perfectly well known to all historians. No historian imagines that he knows any single fact in its entirety, or that any historian ever will. An historian speaking to historians speaks on the basis of an assumed agreement on this point, and is able

to speak as if he thought his own views wholly adequate to the facts : he does not perpetually qualify his statement with "in my opinion," "probably," "so far as the available evidence goes," just because a qualification of this kind is assumed as a standing order in all historical thinking. But the omission of these qualifications lays him open to misunderstanding by anyone who has no experience of historical work and does not know what it is aiming at ; and such a person will think that what the historian gives as a probable opinion, based on the available evidence, is a statement of ascertained fact. This is the fundamental error committed by the philosophies of history which we have been examining, and this is why the historian regards them with contempt ; they have got hold of the wrong end of the stick, they show a radical misunderstanding of the very meaning and purpose of historical work.

Ideally, historical thought is the apprehension of a world of fact. Actually, it is the presentation by thought to itself of a world of half-ascertained fact : a world in which truth and error are at any given moment inextricably confused together. Thus the actual object of actual historical thinking is an object which is not "given" but perpetually in process of being given. To philosophize about history as if this object, as it appears at this or that moment, were the reality for which the historian is looking, is to begin at the wrong end. If there is to be a philosophy of history, it can only be a philosophical reflexion on the historian's effort to attain truth, not on a truth which has not been attained.

The philosophy of history, therefore, is the study of historical thinking : not only the psychological analysis of its actual procedure, but the analysis of the ideal which it sets before itself. Historical thought is one among a number of attitudes taken up by the mind towards the objective world ; it is an

attitude which assumes that there exists a world of facts—not general laws, but individual facts—independent of the being known, and that it is possible, if not wholly to discover these facts, at any rate to discover them in part and approximately. The philosophy of history must be a critical discussion of this attitude, its presuppositions and its implications: an attempt to discover its place in human experience as a whole, its relation to other forms of experience, its origin and its validity.

Compared with this programme, the philosophies of history which we have hitherto been considering appear as forms of that “dogmatic metaphysics” which Kant believed that he had once for all exploded. They not only assume the validity of historical thought, which the historian himself assumes, but, *plus royalistes que le roi*, they assume that the fruits of this thinking have a certainty and finality which no historian would attribute to them; and on this basis they try to construct a hybrid view of the objective nature of historical fact which is at once bad history and bad philosophy. Without believing that Kant is the last word in philosophy, one may very well maintain that the attitude which he thought philosophy ought to take up towards natural science is something like the attitude which it ought to take up towards history: not a dogmatic attitude, which swallows whole whatever it thinks—and perhaps wrongly thinks—it has heard historians say, but a critical attitude, which undertakes the task of inquiring not only into the results of a certain type of thought but into the nature and value, the presuppositions and implications, of that type of thought itself.

III.—*Sketch of a philosophy of history.*

The historical consciousness in its ideal nature is the knowledge of the individual. That it aims at being knowledge differentiates it

from art, which aims at being imagination : that its object is individual differentiates it from science, which is knowledge of the universal. The object of art is the imaginary individual, whereas the object of history is the real individual. Two artists may present to themselves incompatible objects, without on that account being the worse artists ; but if two historians present to themselves incompatible objects (incompatible interpretations, for instance, of the character of Richard III) an error on one side at least is indicated. That is to say, history, like all knowledge, has an object which is one and the same for all knowing minds ; namely, the one unique all-inclusive world of historical fact, within which every individual fact has its unique place. Again, as history and art are not identical *a parte objecti*, so history and science are not identical *a parte subjecti*. Both must be called knowledge, because both are amenable to the distinction between truth and falsehood : but scientific thinking is an abstract thinking, historical thinking a concrete thinking. In other words, because the object of science is not a fact but an abstract type or form, the judgment of science is always hypothetical : " if A, then B." where it is not asserted that A exists in the world of fact. The contact between science and the world of fact consists in this, that there are in the world of fact cases very nearly A, which are therefore very nearly B. Whereas the object of history is the fact in all its actuality, and therefore the historical judgment is categorical. No doubt, categorical forms of speech appear in science (all whales are mammals) and hypothetical forms appear in history (if Thucydides is to be trusted, there was no Pitaneate *lochos*). But the former is not truly categorical, for it does not imply an enumeration of all actual whales but rather tells us that whatever we can identify as a whale, if and when we do so identify anything, we can further identify as a mammal : and the latter is not truly hypothetical, for the trustworthiness of Thucydides is not the ground of the non-existence of the Pitaneate

*lochos**, whereas in a true hypothetical the antecedent is the ground of the consequent (if equals be added to equals, the sums are equal). The ideal of history, then, is to be a single categorical judgment, articulated into an infinity of coherent categorical judgments, asserting the reality and expounding the nature of an infinite individual world of fact articulated into an infinity of individual facts. From philosophy, again, history is differentiated by its objectivity. History assumes that there is a world of fact independent of the knowing mind, a world which is only revealed and in no sense constituted by the historian's thought : it assumes that this thought establishes a relation of knowledge between two terms, the knowing mind and the world of fact, which pre-exist to the establishment of that relation. How this can be, history does not ask. It asks questions only about its own object, not about the way in which it comes to know that object. In history thought does not return upon itself : just as the artist is too much absorbed in imagining to reflect upon his imagining (except perhaps in his spare time) so the historian is too much absorbed in his attempt to apprehend facts to reflect upon that attempt. No doubt the historian's studies bring him into the closest contact with a spiritual life akin to his own ; he seeks to study the activities of the human spirit not by setting up imaginary instances of them, like the artist, nor yet by substituting for them a mechanical play of abstract types, like the psychologist. but by apprehending them in their full actuality, as they really exist in the world of fact. But these actual happenings are

* One might find a nearer approach to a true hypothetical in an historical context : *e.g.*, if this is an eleventh-century building it cannot have been an offshoot of the adjacent twelfth-century monastic house : but in making such a judgment the mind is groping after an historical proposition and has not yet grasped it. When grasped, the situation which is here hypothetically presented becomes " this *is* an eleventh-century building, and therefore," etc.

always the object of his thought, and never his thought itself. However closely he sympathizes with the men whose acts he traces, however much akin to himself he feels them, they are no more than akin ; the relation between him and the object of his thought is a relation at most of *ὁμοιουσία*, never *ὁμοουσία*. He is an historian, and those whom he studies are not historians : his interest in them, in the past, is not balanced by any interest that they may be thought to have reciprocally in him or similarly in their own past. Consequently he is always the spectator of a life in which he does not participate : he sees the world of fact as it were across a gulf which, as an historian, he cannot bridge. He may and ought to reflect that he, too, is a part of the world of fact, and that his own historical thought is a product of the historical process which he is studying ; but this does not reduce history to the historian's self-knowledge, because within the system of fact, though each fact implies the others, each fact yet remains itself and there is a difference between studying one fact and studying another. To specialize in Alexander the Great does not by itself make the historian an authority on Napoleon ; and in the same way, though he is part of the same world as Alexander and Napoleon, his knowledge of them is not *eo ipso* knowledge of himself. Even when he turns autobiographer he does not really know himself, for his actual historical thought, the thought that is active in the composition of the autobiography, eludes him. The historian is thus always thinking of an object other than his own historical thinking : hence history itself is always a different thing from the history of history, and the history of the history of history is a different thing again, and so *ad infinitum*. In all this, the difference between history and philosophy is clear : the philosopher's object is at once himself and his world, and hence philosophy and the philosophy of philosophy are identical. To philosophize is to face the question how we know ; and this question is at the same time the question how we know that we know.

These various forms of thought (art, science, history, philosophy) are not species of a genus. All history is art, because to tell a story is art, whereas to tell a true story is history : thus history is art, but a specification of art, art qualified by a condition (truth) which deprives it of a part of its character but not of all. In one sense, the historian must not be imaginative : in another sense, imagination is his most necessary possession. This is not a mere ambiguity in the word imagination. The historian's imagination is precisely the same thing as the novelist's imagination ; but whereas the artist imagines for the sake of imagining, the historian's imagination is a disciplined imagination, subordinated to the pursuit of truth. Again, the special activity of the scientist is to generalize ; but the historian, as we have seen, generalizes too, only he generalizes not for the sake of generalizing, like the scientist, but for the sake of helping himself to determine historical fact. Thus art and science are contained in history, not excluded from it : yet contained in a form transmuted by their subordination to the historical end. History, on the other hand, is not contained in this manner in art or science ; the historical material of a novelist ceases to be history and becomes pure art by being imaginatively handled, and the historical material of a scientist—experiment and observation—ceases to be history by being torn from its context in the world of fact and regarded as so many mere instances of laws. No doubt the artist and scientist must in some sense be historians, just as the historian must in some sense be an artist and a scientist ; but not in the same sense. The historian is suppressed in the artist and the scientist ; the artist and scientist are preserved but subordinated in the historian. Similarly, the philosopher must in a sense be an historian and the historian in a sense a philosopher ; but the philosopher is suppressed in the historian, and the historian is preserved but subordinated in the philosopher ; history is included in philosophy while philosophy is excluded

from history. This appears in a striking manner in the relation between philosophy and the history of philosophy. No one can be competent in philosophy without having studied closely and well some part of the history of philosophy, but in his actual philosophical thinking the question what view So-and-so held is subordinated to the question what view is true. But the sound historian of philosophy, though he must be reasonably competent in philosophy, is in point of fact often a third-rate philosopher, because he is compelled to desist from raising the question what philosophical view is true in order to concentrate his attention on the question what views have been held by certain persons.

History in its fundamental and elementary form is perception. Perception is the simplest case of historical thinking: it is the most elementary determination of fact. But all history, however advanced and elaborated, is an elaboration of perception, a development of elements already contained in perception: and the world as known to the historian is simply an enrichment of the world as given in perception. History is perception raised to its highest power, just as art is imagination raised to its highest power. Perception appears to the perceiver as immediate; this is what is meant by speaking of the object of perception as "given." But it is not in reality immediate, and its object is not in the strict sense given. Reflexion shows in all perception two elements, sensation and thought: thought "interpreting" or reflecting upon the "data of sensation." Sensation here is a mere abstraction, the limiting case in which we are supposed to receive unreflectively a pure datum. In actual experience we never get such a pure datum: whatever we call a datum is in point of fact already interpreted by thought. The object of perception is a "given" which is itself an interpretation of a further "given" and so *ad infinitum*. The only difference between what we ordinarily call perception and what we ordinarily call historical thinking is that the interpretative work which in the former is implicit and only

revealed by reflective analysis is in the latter explicit and impossible to overlook. History is sometimes said to be an inferential superstructure built upon perceptual data ; but this conveys the impression that history and perception are two distinct activities, the one mediated by thought, the other immediate. This is an error, due to the fact that the thought which is explicit in history is only implicit in perception : for in all perception we are making a judgment, trying to answer the question what it is that we perceive, and all history is simply a more intense and sustained attempt to answer the same question. The past events which the historian brings to light are only revealed by his thought in its attempt to understand the world present to his senses : a past event which has left no trace on his perceptible world is to him unknowable. Seeing a light patch on the horizon and asking what it is, one may reply, it is a snow mountain : seeing a mottled object on the table and asking what it is, one may reply, it is a thirteenth-century charter. The processes involved are more elaborate in the latter case than in the former, but in principle they are not different.

All perception depends on past experience. We only identify that which we perceive as this or that by comparing our present experience with past experience ; and we perceive more and more accurately according as we become more and more able to compare the present experience with relevant experiences in the past. We are not always explicitly conscious of doing this, but implicitly we do it whenever we perceive ; and when we are faced with a difficult problem in perception we tend to do it explicitly. In these cases it becomes clear that perception rests on memory. We give ourselves the best chance of perceiving aright in difficult cases by remembering relevant perceptions in the past : and the effort to remember, or recollection, is therefore an effort to supply ourselves with materials for present perception. Hence we may prepare for solving future perceptual problems by storing our

memory with relevant instances, and assisting it by taking notes of what we wish to recollect. Such collections of instances, in the form of oral tradition or written notes, become a body of corporate memories by which one man's experience may assist not only himself but others : and this is the germ of historical sources and documents. Memoirs, the accounts of things perceived by the writer himself, are the simplest and most elementary form of written history. In reading memoirs we are not so much using our own experience of life in order to understand what we find written, as using what we find written in order to enrich and deepen our own experience of life. But once we make this use of a single man's memoirs, we are in principle making use of anybody's and everybody's memoirs ; we are committed to the study of records of other people's experiences, and this involves the question of supplementing one person's experience by another's. But the experience in question is perceptual experience, and therefore subject to the distinction between truth and falsehood : hence we have not only to read, but to criticize. The recognition of this truth is what differentiates history in the higher sense of the word from the mere absorption and repetition of stories : the historian in the higher sense is the man who is not content to accept what he is told but endeavours to criticize his sources in order to discover, so far as he can, whether they tell the truth. This critical work is sufficiently difficult to require a somewhat elaborate training, which involves the incidental construction of a host of sciences subsidiary to history ; these are commonly called, in the widest sense of the phrase, historical methods. As the word method suggests, these sciences consist of empirical generalizations or rules of procedure, instructing the student how to proceed in typical cases. Of the construction of such sciences there is in the nature of the case no end ; for each has value only in relation to a certain arbitrarily-limited field of inquiry. Their business is to solve the problem

"how can the historian check his sources?" to which the general answer is, "the historian who knows his business can always invent methods of checking any source." This would be impossible if the historian's work consisted simply of arguing from given data; but we have already seen that there is no such thing as a given datum. The historian's data consist of what he is able to perceive; and if he can perceive little, no one but himself is to blame. The better historian he is, the more his sources mean to him: and an infinitely good historian would have at his disposal an infinite quantity of infinitely reliable evidence on any given point. This is no empty ideal; it is one progressively realized. No competent historian who reflects on the progress of his own thought can overlook the way in which that progress has created* masses of evidence bearing on questions concerning which there was once no evidence whatever. It is, however, a truth easily overlooked if we regard history from the academic point of view, the tendency of which is to treat the "sources" for a given period as consisting of a finite number of facts capable of being set before the student in a source-book and not susceptible of any interpretation which has not been already suggested. It follows that there are in history no insoluble problems. A problem only exists for the historian in so far as something in his experience has raised it; and in the case of any *bona fide* problem—as distinguished from the pseudo-problems which may be raised verbally out of idleness but are not actually raised by historical thinking in the course of its development—the way in which it arises must of necessity, to an intelligent mind, convey some hint of the direction in which evidence for its solution is to be sought. If history had been the mere determination of any and every past event, it would be full of insoluble problems: what, for instance, was the name of the first Roman citizen who died a natural death in the year 1 A.D.?

* *Created, not discovered*, because evidence is not evidence until it makes something evident.

His name was just as much a fact as the name of the Emperor then reigning : but before his name can become a problem to historical thought, the problem must arise within historical thought ; it must, that is to say, arise somehow out of the attempt to perceive more adequately the world that exists here and now for our perception. The infinite whole of fact which it is the historian's business to determine is—and this is crucial for a sound philosophy of history—a world whose centre is the historian's " immediate " perception, and whose radius is measured by the depth to which he can see into the significance of that perception. Hence there is in the last analysis no distinction between his sources and his conclusions ; his conclusions, as soon as he has reached them, become his sources, and all his sources are conclusions which he has reached. The distinction between sources and conclusions is a provisional distinction arising out of the distinction between problems solved and problems as yet unsolved ; that historical judgment is a conclusion, out of which as yet no new problem has arisen.

If the radius of every historian's world were infinite, the world of each historian would coincide with that of every other. But this does not happen. The world of every historian is limited by the limits of his knowledge : and because no two historians start from the same " data of immediate perception," the circumferences of their worlds must always fail to coincide. Any two historians will find that they share a large number of interests, of problems, of beliefs, but that each has a number of problems, urgent for himself, which for the other are wholly non-existent. This fact, which is called specialization, is familiar enough, but it is not always recognized to be a necessary implication of the historical consciousness ; indeed, people who believe that the business of history is merely to discover the past in its entirety are unable to understand it and apt to emphasize their failure by deploring it.

Each historian sees history from his own centre, at an angle of his own : and therefore he sees some problems which no other sees, and sees every problem from a point of view, and therefore under an aspect, peculiar to himself. No one historian, therefore, can see more than one aspect of the truth ; and even an infinity of historians must always leave an infinity of aspects unseen. Historical study is therefore inexhaustible ; even the study of a quite small historical field must necessarily take new shape in the hands of every new student. This, we may observe, is not subjective idealism, unless it is subjective idealism to maintain that a hundred people looking at the same tree all see different aspects of it, each seeing something hidden from the rest. The more their perception is an intelligent perception, impregnated with thought, the more nearly true it will be to say that each sees what the others see, and that all see not merely an apparent tree but the real tree ; but they can never detach themselves from the distinct starting-points at which they took up the process of perceiving. So the various "perspectives" of historians are arranged in a "space of perspectives" ; each historian is a monad which mirrors the universe from a point of view that is irrevocably not any other's point of view.

And the historian's own point of view is not constant. The world he perceives is a world perpetually changing not simply by the increase of its radius but by the displacement of its centre. His problems change not only as one is solved and in its solution generates another, but also because problems cease to interest him before he has solved them finally. He is always "giving up" riddles as well as answering them ; indeed, the way in which he deals with every actual riddle is a compromise between answering it and giving it up. Hence no single historical problem is ever finally solved. All history at its actual best is the provisional and tentative answer to a question which remains at bottom unanswered. The actual and the ideal do converge ;

the historian does get nearer to a real knowledge of the infinite world of fact ; but they converge asymptotically. The nearer the actual comes to the ideal, the greater becomes the force, generated by this very approach, to prevent a still closer convergence. The more the historian knows, the more acutely he becomes aware that he will never really know anything, and that all his so-called knowledge is to an unverifiable extent erroneous. Fact, in its reality, is unknowable.

Thus, in so far as he reflects upon his own historical thinking, the historian learns the merely monadic nature of his own thought. But a monad has no windows, and the historian as such cannot do the work of co-ordinating the infinity of possible perspectives. He can only travel from one perspective to another. He can never get outside his own point of view and see it as a monad among monads. He is a monad, not a monadologist ; that is to say, he is a necessary victim of the "egocentric predicament" which holds good of all perception. This is because of what we called the objectivity of history. The historian thinks about his object, not about his own awareness of his object ; he thinks not about his point of view but from his point of view. But in reflecting, that is philosophizing, about his own thought he recognizes that he is a monad, and to realize that one is in the "egocentric predicament" is to transcend it. When thought returns upon itself and faces the question of its own relation to its object, by criticizing the point of view from which it has regarded that object it transcends this point of view.

Hence to philosophize about historical thinking is to transcend the monadism of historical thought, to desert monadism for monadology, to see not merely a perspective but the space of perspectives. History is finite thinking, because in its concentration upon its object it suppresses the question of its relation to that object ; philosophy is infinite thinking because in philosophy the question what its object is coincides with the question of the

relation between its object and itself. Philosophy cancels the finitude of history simply by recognizing it.

The world of fact, which for history is an external presupposition of thought, becomes for philosophy a world of perspectives each having at its centre an historical consciousness ; a world of worlds of thought each relative to its thinker. This world of worlds is a world which has no centre ; its centre is everywhere and its circumference nowhere ; and in it there is no such thing as a presupposition of thought except in the sense that thought itself is its own presupposition.

*Meeting of the Aristotelian Society at 21, Gower Street, London,
W.C., on March 23rd, 1925, at 8 p.m.*

X.—THE THEORY OF THE STATE.

By J. H. HARLEY.

HEGEL, in one of those exultant trumpet calls of optimism which enliven the discussions of his "Philosophy of Right," has assured us that "we must have nothing in the State which is not the expression of rationality." If that is so, it would seem that, in investigating the structure of Leviathan, we have a task which is pre-eminently fitted for the dissecting knife of the theorist. Yet it cannot be concealed that the Theory of the State, important and insistent as it must ever be pronounced to be amid the difficulties and complexities of the present time, is not now so finely balanced nor indeed so symmetrical as it appeared to be in the period of Hegel. In those days the State presented its claims with an air of irresistible majesty and it veiled its recourse to semi-rational, if not wholly irrational, sanctions, by a reference to the Lord's Anointed. There was the family which was based on love, the Guild on the interest of craft, and the Church which was based on faith, but who could lay stress on the claims of any of these other loyalties when the State could be dialectically described as "the ethical self-conscious realization of spirit"? But now almost everything is changed in the spirit of these earlier dreams. The State has proclaimed too many strange doctrines to be enthusiastically admitted as ethical, and he would be a bold philosopher who would stand in the East End of any of our great modern cities,

and maintain pontifically that he could discern any self-conscious realization of its purposes. The truth is that political philosophy has too often to stand on the defensive and, indeed, has sometimes to contend obstinately for the right of mere existence. The State has been claimed by its enthusiasts as a true Universal, and *bona fide* Universals are now regarded as frigidly as an aristocrat at the Club of the Cordeliers. Mr. Bertrand Russell, who would play the part of Camille Desmoulins in this modern philosophical Terror, speaks of the State as "one of the chief causes of misery in the modern world and one of the main reasons which prevent men from growing to their full mental stature." This is entirely an opposite position from that of the political philosophers of an earlier date, who begin with a hypothetical and abstract individual, but who lay stress on his solitary and defenceless position in order to impel him more readily into the arms of the State. Hobbes, for example, starts us at a point where the life of man is "solitary, poor, nasty, brutish and short." War is in the air, and how can the solitary individual feel other than impotent in the face of embattled hosts? No wonder that we are carried along in the wake of what seems an irrefragable dialectic and signify what can only be termed convinced approbation when we learn that these sorely tried and timid individualities "get themselves out from their miserable condition of war" and "tie themselves by fear of punishment to the performance of their covenants." But where, either on sea or on land, was ever to be seen this solitary individual "man"—he is always referred to as of the male sex—who was the starting point of Hobbes' social deduction? Mr. Bertrand Russell certainly does not pretend to have been staggered by such a vision. He admits, readily enough, that "almost every man finds it essential to his happiness to feel himself a member of a group," and concedes that "it is chiefly tribal feeling that generates the unity of a national State" before following in the line of Hobbes and attributing the

strength of the State to "the fear of crime and anarchy within and the fear of aggression without."* Much the same line of questioning is equally in point when we have to deal with Locke's rational deduction of what he on his part understands as the State. Locke gets a little nearer to the realities of human nature than Hobbes because he affirms quite definitely at the beginning of his argument that "the first society was between man and wife." But he makes no use of this admission when he struggles in the heat of his effort to furnish a theoretic justification of the State. Then we have much to hear of a hypothetical and sexless clash of individuals, who, as yet unrelated to society, are nevertheless conceived to be endowed with what are termed "rights" and "properties." "The great and chief end," he said, "of men's uniting into commonwealths and putting themselves under government is the preservation of their property." But was Green not right when he held that a necessary condition which "must be fulfilled in order to constitute property," even of the most simple and primitive sort, is "the recognition by others of a man's appropriations as something which they will treat as his, not theirs, and the guarantee to him of his appropriations by means of that recognition"? What is a property worth if it is at the mercy of every passing stranger? No wonder that, after this tremendous assumption, Locke finds it easy to conceive his sorely harassed individual progenitor as possessed by a desire for "a comfortable, safe and peaceable living" and to be placed "in a secure enjoyment of his property." Such a State, like Schelling's Absolute, is indeed reached "by the shot of a pistol." In this case it is "Eclipse first and the rest nowhere." The State is an undoubted postulate of all social thought, because only by combination under the ægis of its protecting arm can individuals be prevented "from invading each other's rights."

* Russell's "Principles of Social Reconstruction," pp. 53-54.

II.

To-day, however, it is impossible to start a deduction of the State from a condition of abstract individuality in which our men of straw, helpless and hopeless, are simply constrained to place themselves under its care and protection. We are living in an age of combinations. The Social Contract is now no mythical process which took place, once for all, in some remote date of unrecorded history; it happens before our very eyes, when, in order to combat an injustice, or carry some new reform, two or three individuals combine their forces and voluntarily enrol themselves as members of a fresh association. An American sociologist, Mr. Albion Small, defines Sociology as 'the study of men considered as affecting and as affected by association.'* In the light of this definition the State takes its place among the associations which men have affected and by which they in their turn have been affected in innumerable ways. If this was a general paper on the concepts of social life, it would of course be necessary to start with a good deal more of analysis and definition. The words "society," "community," "association," and many others would have to be carefully investigated and distinguished. That is not possible at any length within the limits of a general paper on State Theory; but some rough distinctions must be proposed in order to make clear the subsequent use of such terms. "Society," for example, may be defined as a combination of men and women, in which, by reason of common ideas and habits or the pursuit of a common employment, such men and women act in some sort of a complementary relation to each other. "Community," on the other hand, carries with it the implication of neighbourhood or locality, the men and women concerned being within the same superficial area. Lastly, "association" is best

* American Journal of Sociology, Vol. V, p. 506.

limited to cases where there is some sort of conscious realization of the need for combination as in the case of the voluntary societies to which reference has been already made.

When considering the Theory of the State, therefore, we do not start like Hobbes and Locke with the individual, and project him into the State's benevolent arms. We start, as in Sociology, with man affecting and being affected with all kinds of social concerns, and we have to place the State in its proper position as related to and relating all the rest. But at the outset of our search into these various and complicated forms of social life, we are confronted with a claim on the part of the State to some sort of a decided pre-eminence. Was it not Bodin, one of its earliest theorists, who gave currency to the idea of Sovereignty, and who defined this much-discussed term as "supreme power over citizens and subjects unrestrained by laws"? It is not necessary, at this stage of the argument, to comment on the unrealities which lurk in this definition, though most of them will be in the limelight before the discussion comes to an end. Suffice it to say that the definition entitles us to maintain that, as compared with other societies, the State makes a claim for special treatment or even for pre-eminence, and it is to the investigation and elucidation of such a claim that this paper will be specially directed. Is there any ground for the belief that the State can establish its claim to be superior to other forms of social union? Is it entitled to apply its outward force in order to suppress them? Philosophically regarded, what are the features which distinguish the State from other combinations?

Several reasons, more or less inadequate, have been given at different times to justify these pre-eminent pretensions on the part of the State. For example, the State has been compared with the association, and it has been called a compulsory as compared with the voluntary combination. You can choose whether you shall be a member of the Antediluvian Order of

Buffaloes or the Society for the Liberation of Religion from State Patronage and Control. You can enrol yourself as an adept of some combination for the Taxation of Land Values or chafe your withered hands at the shrine of some Anti-Socialist League. But you cannot avoid being a citizen of your particular State—that is, if there is no limited Suffrage Enactment. You were born so ; and even if you have removed in later years and acquired another nationality, you find that this new nationality came to you automatically from the fact of taking up your residence at a fresh position on the world's surface. There is truth enough in this, as we shall hereafter see, but it does not constitute a reason for claiming any distinctive prerogatives on the part of the State. Besides, you do not choose your own family, and there are very few in the modern State who have very much choice as regards their trade or profession, *i.e.*, what trade union they shall ultimately join. But, again, it may be pointed out that other combinations have particular aims or are limited to certain aspects of human activity ; but there is in the aims of the State a certain species of large generality which distinguishes it effectively from all the rest. Other combinations may teach you how to live, but the State teaches you how to live well. Here, however, we have an argument which does not adapt itself so readily to the hypotheses with which we started, that the State is not to be placed in relation to or in comparison with individuals, but is to be considered as contrasted with or as co-ordinating other forms of social combination. As compared with the individual, the State may be proudly designated "the individual writ large," but as compared with other associations a great deal more rigorous analysis is needed before we can concede to it any grander claims. In the days of what is termed State Socialism, indeed, it might have been claimed that the State was becoming the organ of the most comprehensive plans of social purpose, and that it was the central authority to which all others must bow the

knee. But these halcyon days are now quickly passing away, and State Socialism has lately been assailed with a sufficient amount of vigour as implying the triumph of the bureaucracy, or as aggrandizing the executive or most really archaic side of the communal life. At any rate, the State does not now seem destined to absorb all other combinations into its world-embracing activities, and in order to justify its pre-eminent or special claims its advocates must take up some other line. May it not be said "that the State differs from other combinations because it has force at its disposal"? It can apply certain effective varieties of coercion if you dare to disregard its behests. As the State is actually presented to us to-day there is, of course, a great deal to be said for this view of the case. The young shopkeeper who, under a Military Service Act, is compelled to leave his business and report at the nearest army depot, realizes only too definitely what compelling force the State has at its disposal. But the question which is really relevant is not whether the State has force at its disposal, but whether the possession of this force is characteristic of the State, and really differentiates it from other forms of combination? When the question is so put, the answer can hardly fail to be in the negative. Other societies dispose of their own coercive sanctions, and these, though they differ in their methods, do not differ essentially in kind from the methods employed by the State. The Roman *patria potestas* shows how effective were the constraints at the disposal of a family head. The theorists of Syndicalism have sufficiently set forth what are the coercive resources at the disposal of the modern trade union, supposing that at all events it deals with one of the primary necessities of civilization. In this case, as they are never tired of emphasizing, it is not at all necessary that the workers who propose to initiate a "Revolutionary Strike" should comprise the majority of the community and not even of the workers engaged in industry. All that is necessary is that they should be

workers in a key industry and, because they have the power of the key, they are able to hold up all the rest. The miner, for example, ceases to do his work, and, after a time, first transport and then all other forms of industrial life are ultimately affected ; and who can dwell on the State's control of force and say that it is a force more coercive and more effective than this ? Of course, the exercise of this force implies two things : (1) That the workers who seek to employ it are absolutely united. It is an act of war and in war divided counsels imply defeat, while treason or cowardice are punished with death. (2) That, while the suffering majority to whom the force is applied do not actually take part in the strike, there is yet a sufficiently diffusive, if not perfectly self-conscious sympathy with it, to prevent a combined rally against the strikers. If there is not such sympathy, as is seen from the history of Fascism, the force is met by a counter-force. But, in any case, it may be objected that the forces of the State are so powerful that ultimately they must succeed. For example, and this especially applies to industries nationalized by the State, the State may call the men to the colours and afterwards by the force of military constraint enforce on them industrial conscription. Yet here, again, the same limitation applies both to the State and to the Syndicalist Union. In both cases the exercise of ultimate force only succeeds if the effective power of public opinion is not vigorously marshalled against it. Success in modern warfare, where conscript armies are employed, depends on how far any vigorous power of public opinion can be concentrated in combinations which are used to impede the effective prosecution of military operations.

III.

What, then, are the primary characteristics of the State as contrasted with other forms of combination ? The way to a complete answer can be found by reverting to the distinctions

which have been already drawn between society, community and association. A society is bound by common ideas and habits or the pursuit of a common employment: a community is based on neighbourhood or locality: and an association is limited to cases where there is some sort of conscious realization of the need for combination. As interpreted in the light of these distinctions, a State must be regarded as a community rather than a society or an association. It is based on territory and the juxtaposition in territory rather than on the perception of common aims and sympathies. It is based on neighbourhood and the attempt of neighbours not always of the same tastes, or of the same political parties, or even of the same race, to live tolerantly together, and to achieve a diversity of functional results by combining together the rich products of their varied hopes and fears. The process will be a difficult one, because the strands of attachment have all to be gradually and artificially woven, but the prize of success is valuable, because the population in some vast extent of territory may be literally roped into the same wide net. No doubt the peoples in these territories will be bound together in an elementary fashion by the consciousness of kind—that perception of the “eject” which, more powerfully than any other experience, produces in us the realization of realities external to ourselves. But that is a primary social experience and lies at the basis of all forms of human combination of whatever sort or fashion. Historically the mode of community, which is known as the modern State, arose most commonly when a nomad society invaded an agricultural society and, having subdued the other and, in some respects, the more advanced civilization, assumed towards it the attitude of conquerors to conquered. This meant, in effect, the breaking up of ancient ties based on blood relationship or common worship because the conquerors, generally with a war chieftain at their head, were naturally jealous of any other forms of social union which seemed to interpose obstacles to the effectiveness of

their despotic rule. In ancient Greece some such operation as this was attributed to Cleisthenes, who divided up Attica into demes or parishes instead of the four old tribes composed of groups of kindred. The word "State" itself, when it came to be applied to the national combinations such as that of Louis XIV or the Tudors, clearly preserved its reference to land or territory.* Maine has pointed out that the view of State sovereignty entertained by the earliest international jurists in the sixteenth and seventeenth centuries appears to have been transferred from Roman Law and it was at bottom based on *dominium* or ownership. These jurists regarded the civilized world as an extension of soil divided up between a number of Roman proprietors, all of them equal before the law, whereas their subjects stand to them, so far as International Law is concerned, in much the same relation as the slaves or freed men of any Roman estate stand to the owner. Here, however, there comes in a complication which has been responsible in the past for sending the theorists of the State in full cry on a wrong scent and leading to an impossible idea of sovereignty. Even the international jurists regarded the sovereign as an individual, and cases such as the United Provinces of the Netherlands, where the supreme authority was obviously not individual, were considered as exceptions which did not invalidate the general trend of the argument. Bodin, who uses the word "Respublica" to express what was, in effect, the "stato" of Machiavelli, defines this "republic" or "state" as an "association of a number of families having interests in common under the authority of a supreme ruler and of right reason."† Here, beside the families, to which we shall return

* Machiavelli regarded his "stato" as a "dominio" exercising "imperio." See Dowdall, "The Word State," p. 14.

† "Respublica est familiarum rerumque inter ipsas comunium summa potestate ac ratione moderata multitudo." Bk. I, chap. I.

later, we find two poles in the thought, the "supreme ruler" and the "right reason." As shown, the two appear equally commanding, but, as Bodin continued in his treatise, the emphasis came continually to rest on the authority of the supreme ruler. Nor is this a subject for surprise. The whole aim and object of the theorist, so far as he had any aim or object at all, was to defend the shaken monarchy of France, to put a stop to civil war, to cause religious persecution to cease, to repudiate the appeals to rebellion and tyrannicide made by infuriated sectaries, and to restore peace and prosperity to a stricken land. He wanted an authority which would declare and enforce the law, but which would itself be without law. From such an authority, as he conceived it, there could be no appeal. Bodin's quest, however, was after a vanishing will-o'-the-wisp. You may pass in regular procession through a series of subordinate authorities until you come to the absolutely first, but when you think you are on the top of Mount Everest, you find there is still another higher peak to be scaled. When all else mounts upwards in regular gradation, why should you stop at the king and say that here the orderly gradation shall end? The logic of the whole process reminds us of the Kantian autonomies or of the absolute of Hamilton and Mansel. You may find rest within the relations of an ordered system, because all is relator and related, and there is no Ding-an-sich which is in the system and yet absolutely out of the system. In the same way you may set forth in a system of constitutional law the conditions under which authority limits and is limited, and the synthesizing principle which takes the place of the Sovereign is no unrelated absolute, but a principle which is expressed in and through the whole. Indeed, Bodin very well knew, when his thought was freed from an overmastering desire for unity at any price, that his All-Highest was not entitled to the satisfaction of his own particular caprice. His earthly ruler, he admits at the other pole of his thought, must necessarily be

subject to the supreme authority of the laws of God, the laws of nature and the laws of nations. Only he never remained long at the height of this only tenable position. Almost at once the practical demands of his time would intrude themselves and he would relegate all these magnificent presuppositions to his mental museum of antiquities. It was only the writers on international law who were brought continually into contact with these controlling verities, and so, as we have seen, they look on the Sovereign as one out of many Roman proprietors each owning his specific portion of soil. In that way they laid hold of the true territorial or community idea of the State, which could, of course, only be reached when the process of feudalization was completed and the King of the Franks had become King of France. How completely questions of territory had overshadowed all others can be seen from a glance at the works of their several jurists. They discussed (1) under what conditions was the State to occupy unappropriated territory? (2) Was it allowable for the State to annex new provinces without the consent of the inhabitants? And (3) what are the territorial rights of States over portions of the sea or over lakes and rivers?

With questions such as these dominating the minds of the rulers of the State, it is small wonder that troubles ensue. Dynastic and religious wars became an ordinary incident of European life. Considerable portions of territory passed from one State to another like pawns on the chessboard. The inhabitants of such territories had small claim to consideration, and the only difficulty was to keep them together in some sort of social unity. The instinct of the despotic ruler was to suppress all the other minor loyalties of feudalism, and, if the old binding principles had vanished, what was there to put in their place? All the greater statesmen of the early days of the modern State felt that here was a problem to be solved. The State was based upon community or neighbourhood, and how could the neighbours

be got to agree ? Thinkers like Bodin saw in religion a distinctly cohesive force. It could be useful to the ruler by keeping people with certain unruly inclinations in a minimum amount of peace and order. But then people must agree in their religion. A host of quarrelling sectaries would only make the confusion worse confounded. Consequently, it was necessary to shepherd the sectaries of the State into the folds of one particular church. "*Cujus regio, ejus religio.*" But how was that to be done ? A religion imposed at the point of the broadsword is no religion at all. Bodin saw this as clearly as any modern would do. Consequently, he fell back on the idea of outward conformity, which became the parent of the subsequent discussions on Toleration, which played such a prominent part in the thought of Locke. Your sectary might mutter his dearest incantations in the secret chambers of his own heart, but with his outward lips he must make some formal acknowledgment of his territorial religion. It was a pitiable compromise, and produced the attitude of mind of certain Roman augurs who were said to have winked their eye when they passed another adept of the same creed. When tried by the strict pragmatic tests of historical development it was surely found wanting, and, consequently, as the nineteenth century proceeded on its course, recourse was had to the very powerful and influential principle of Nationality. This was often confused with race and led to such later developments as the theory of the mission of the Nordic man in Europe and the United States of America. But, as the administrators who applied the Treaty of Versailles very soon discovered, the way of ethnographers is hard. To get a State composed of only a single unmingled race is plainly impossible. One relevant point only must be made. Nationality was always conceived of as a particularly intense feeling connected with a certain extent of territory. The Jewish nation associated its dearest hopes with the occupation of Jerusalem. The Polish national spirit wandered

uneasily in its disembodied form through the Europe of the nineteenth century and their great national writers, held up in is, longed passionately for the day when their country should come again into possession of its own. Indeed, it is plain that principles such as Nationalism were only supplementary. Their purpose was to bind together the people on a certain territorial area, but they did not affect the real communal or territorial basis of the life of the State.

IV.

It is not, however, sufficient to stress its territorial implications in order to get a clear and distinct idea of the State as contrasted with other combinations. We must go further and deal with other characteristics still more vital and important. To discover the first of these it is only necessary to revert to the definition of Bodin, which has been already given.

In that definition, it will be remembered, he spoke of his Republic as "an association of a number of families, having interests in common, under the authority of a supreme ruler of right reason." We have already dealt with the "supreme ruler" and "right reason," and we have pointed out that the defects in Bodin's thought arose from his laying too much stress on a particular form of the first as contrasted with the second. But the implication contained in the earlier part of the definition, that the State is "an association of a number of families," Bodin never adequately understood at all, although that was an aspect which the Roman Law of the *patria potestas* and the Teutonic family communities ought to have brought prominently before his mind. The State, in fact, is a compound and not a simple association. It is not unitary, but various. It is no mere combination composed of individuals whose various attachments to its social unity may be studied by Social Psychology, but it is a complex combination, founded on neighbourhood, but having

localized within the bounds of its territory a diversity of societies and associations, all the more numerous and various as the life of the community gets richer and fuller. It is really to perpetuate the major defects which, as we saw, are inherent in the political philosophy of Hobbes and Locke to conceive of the State, as a "contract" and to oppose individuals in their abstract particularity to its overweening power. In such a case there is a want of binding relations, there is little except psychological observations or external and really unrelated "institutions" to bind together our cloistered individuals to the social whole. Of course, as we have seen, the hypotheses of social philosophy have to work themselves out, or approve themselves as well founded in the pragmatic school of history, and the rulers of the earliest specimens of the modern state deliberately tried to stamp out all that was inconsistent with its contrary character. They desired to be brought into contact with a number of only casually related individuals instead of with societies exercising functional activities, which could not be explained by the mere addition of the individual capabilities of their numbers. Even as late as the nineteenth century, in the history of Great Britain and more particularly in the history of France, the operation of this acquired tendency towards State unification can be seen in the attitude of the State towards trades unions or other forms of working-class combination. In France it was not till the year 1884 that trades unions or professional associations of more than twenty persons, carrying on the same or similar trades, or connected with trades associated together to produce the same finished article, were allowed to meet freely without the authorization of the Government. That was very convenient for the employer or those in control of the coercive machinery of the State. In combination the workers are a power beside the throne, but as individuals and only casually associated they cut a sorry figure beside the favoured partnership of employers, who have a call on accumulated capitals and know

every turn of the game. In its earlier days, too, the State gave short shrift to the large number of feudal loyalties, originally bound together by their acknowledgment of the Empire, or their reverence for the claims of the Church. These loyalties were in ordered gradation and started from the tenant on his little plot up to a number of more and more important tenants, the smaller having an overlord in the larger. When one of these disengaged himself from his allegiance to the Empire he became the Supreme authority within his own barnyard and took good care that there should be no organized power left which would be likely to dispute his claims. So in the Greek City State, Plato sought to absorb the family as a separate form of social union. So also in the Roman Empire, as the early history of Christianity plainly shows, there was a jealousy of unlicensed collegia and even of factiones or clubs. In supporting the suppression of these minor combinations, the earliest theorists of the State considered that they were doing what was capable of reasoned defence. After all, the State was a more comprehensive combination. It had unlimited possibilities of growth. Wars of conquest could add to its territory. Judicious marriages and intermarriages might add fresh acres to its lands. The family, on the other hand, had small possibilities of growth. Elaborate processes of adoption might help up to a certain point, but even they could carry us only a very limited way. The State it was that could collect together vast multitudes of populations and thus constitute an overlordship of far more surpassing splendour. The community was coterminous with the whole earth's surface, for even the desert might some day be reclaimed and blossom as the rose. But, then this emphasis on the unitary character of the life of the community produced most disconcerting consequences. When all the lesser loyalties had been consistently destroyed there could only be left the head of the State and a mob of disillusioned individualities who were held together by the external constraint

of his single dominating power. The balance is only restored again when we add to the territorial definition of the State the further characteristic that it is compound and not unitary. The individual citizen is not a mere individual, and we cannot on the basis of abstract psychological analysis start a sociological discussion by asking how the individual can acquire social propensities or habits. From the first Social Philosophy sees the population within any definite community affecting or affected by various sorts of combinations and the State's supreme function is to co-ordinate these combinations instead of suppressing or destroying them. From this standpoint, too, we are qualified to track out the ambiguities lurking in the term "General Will" as an expression of the supreme authority in the State. Green, for example, in one passage of his "Principles of Political Obligation," defines the "General Will" in practical agreement with Rousseau, as "the impalpable congeries of the hopes and fears of a people, bound together by common interests and sympathy." But in another place he says that it is "not the momentary spring of any and every spontaneous action, but a constant principle, operating in all men qualified for any form of society, however frequently overborne by pressing impulses, in virtue of which each seeks to give reality to the conception of a well-being which he necessarily regards as common to himself with others." Now these two extracts convey two very different impressions of the "General Will" which is in question. The first of them suggests a swarm of individualities coming together under the aegis of the State, and reaching a confused general result, labelled as "impalpable" and arising from the mingling of "hopes and fears" which is the product of the external attachments of their single existences. But what is it that brings these isolated individualities together? Would there be anything valuable in a public opinion which, when all other loyalties had been obliterated, left the State as a simple territorial combination in which the elec-

torate lacked the educating power of social association and could be led astray by all the sentimental catchwords of the passing hour? This was realized by Green in his second definition, where he limits the operation of the "General Will" to "all men qualified for any form of society," to "those who have the conception of a well-being which he necessarily regards as common to himself with others." Does not this mean really that only those who have social attachments are qualified to form a perfectly effective "General Will" and that, therefore, the community is not a simple but a compound combination?

V.

Up to this point of our argument the State stands revealed, from the theoretical point of view, as a compound combination of community life, but some further investigation is needed before we are qualified to make a sufficiently comprehensive and adequate appraisal of its claims. The first attempt in this direction might be made by pointing out that, in virtue of this, its compound character, coupled with the possibly wide range of its territorial extension, the State can localize all kinds of varieties of societies and associations, thus presenting the appearance, as compared with any of these simpler combinations, of immensely increased variety and complexity. No doubt there is something convincing in this line of thought, even when the State is compared with some of the great international Trusts and other forms of combination which we see springing up in modern commercial or industrial life. Trade unions, for example, may unite in a Great International Federation, but then the individual members of each national unit of this Federation only realize a certain portion of their total power of social attachment, in working in and for their union. Each member of the union is a member, because he is a worker in a particular trade or

industry, and his fellow members are there because they work in the same trade or industry. They thus in the very nature of the case acquire common habits and develop kindred aspirations and sympathies, which enable them to wield a highly concentrated social purpose, when they are acting together in pursuit of the objects of their society. But the citizen of the State is a much more intricate complexus of social attachments, and two such citizens, working together in the same factory, may be widely different from each other from the point of view of the variety and comprehensiveness of their communal life. It may be necessary to return to this point later on, but meantime it is necessary to develop our argument as to the comparative value of the State as a form of social life by connecting it with the results of fundamental philosophical theory. As combined together in States, we see certain sections of the world's population divided up into territorial areas, with more or less defined boundaries separating the one from the other. Mountain and lake and river, valley and tundra and desert, are gradually explored and surveyed, until the whole geographical features of the earth are plainly known, and take their place among the distinguishing natural features of their own particular territorial combination. In other words, the State, as a compound form of social combination, is more comprehensively and intimately attached than other simpler combinations to that spatio-temporal continuum which is the starting point of all philosophic deduction. Its territories can be divided up into farms and estates, each with their own definite contour and shape. Its citizens can have their town-planning schemes in which ideas can be embodied in regional plans, plotted out in charts and maps with geometric accuracy. The simpler societies and associations, which together make up the total variety of the entire communal life, can be most easily manipulated in our social hypotheses, and recalled in our individual memory, when we locate them in some part of the

earth's spatio-temporal superficialities. The soil of the State, so capable of expression in terms of extensive quantity, is the raw material of industry, and on its continuum our crops are grown. This line of argument does not necessarily mean that the spatio-temporal continuum is regarded as anything pre-eminently mysterious or that it must eventually turn out to be an engulfing fate, by which all corporate life must ultimately be swallowed up and destroyed. This spatio-temporal continuum is only the beginning of a thought development, and you cannot reckon a development happy or justifiable until, to some extent, you have discerned its end. Our thought process is surely a pyramid perched on its apex if, like the Indian mystic, we derive incomprehensible wisdom from the contemplation of vacancy; but, at the same time, if our theoretic deduction is to be really valid, there must be no lacunæ in the process, and all the stages must find their points of attachment in the concepts with which we make a start. These, in the very nature of the case, are to be found in the simplest and most general of the ideas that are presented to us in the originally undifferentiated and yet massive continuity of our experience. Professor William James even proposes to be able to appreciate "the *rust* discomforts of a colic or a lumbago." Perhaps it requires a high access of somewhat detached stoicism to rise to this elevated point of knowledge, but it is nevertheless clear that we have become so habituated to the discovery of spatio-temporal Universals that we can readily and succinctly manipulate them in a symbolic form and fashion. They are combined and re-combined in all kinds of functional variations, and they give rise to emergent combinations which exhibit properties which are not wholly expressible by the symbols with which they started. But they must always find their starting point in these symbols, and it cannot be denied that the State, where territory can be quantitatively measured, has advantages over other societies and associations as being more

fitted to be a co-ordinating centre for attaching them to the primary spatio-temporal realities. Furthermore, as has been already suggested, spatio-temporal relations being stereotyped by habitual experience in our perception of the outward world, have become the most convenient of all symbols for recalling the general features of even the most complex of such experiences; and the fact that the main features of the territory of a State can be transferred to a map and drawn to scale give the combination a pre-eminent advantage in the manipulation of our social thought. A local habitation and a name are provided for the spirit of patriotism, and a thousand-and-one feelings and sentiments are interwoven with this manageable image which we easily carry in our mind.

Of course the Space and the Time which are here in question are social and not individual Space and Time. They are measured by standards and decades settled by the organized community. As a matter of fact, we find that when any of the great writers of a definite State try to convey their overpowering feeling of affection for the community in which they live, they recall by preference the natural features as extended in space. or, alternatively, some great historical memories as localized within the accepted measurements of time. Was it not Shakespeare who, in the days of the Tudor State, spoke of "This blessed spot, this earth, this realm, this England," thus revealing the character of the recollections which had remained indelibly imprinted on his mind?

Of course, this argument may be pushed further still. It may be pointed out that the State is the combination that may be described most fully in biological language, as in the works of Spencer, Worms and Lilienfeld, though it differs completely in certain details from the biological organism. Or we may devise a system of social psychology with Tarde, Baldwin and Wallas, and find in it numerous points of attachment with the social

community we are out to explain. But these points demand much more consideration than can now be given them. Suffice it to establish that, of all forms of human combination, the State it is which reposes most firmly on its foundation in the spatio-temporal continuum.

VI.

When the theoretic implicates of the State are thus systematically scrutinized, it can at once be realized how useless it is to ask for a perfectly independent or sovereign State. The boundaries of one State are coterminous with those of another, and the boundary line may be no natural features of river and mountain, but only a row of blockhouses with a sleepy sentry beside them. States are not strictly isolated units which can only maintain intermittent relations through ambassadors and ministers plenipotentiary, whose residences, by a convention of international law, are still supposed to be on their own soil. They are related to each other by their spatial boundary line, for has not space been defined as "the abstraction of the relation of externality between two surfaces"? They can form Federations, and perhaps it was the appearance of such a Federation as the United States of America, which drove the later theorists to the conclusion that the last word in social combination had not been said by the unitary State. In the United States we have separate communities which, each of them bears the name of State, and yet each of them has certain general powers withdrawn from it and delegated to the central government. That is one way of regulating the relation between constituent states and a general system. Another is to delegate certain powers to the constituent states, and leave all the remainder to the central authority. But here, again, we are entering on questions which more properly belong to constitutional law than to the Theory of the State.

Enough, however, has now been said to show that the State has distinct claims to consideration beyond all other societies and combinations. The facility with which it establishes itself over vast reaches of territory, its compound character, and its relation to spatio-temporal realities, all ensure that, as a form of social combination, it cannot be finally superseded. But is there any sufficient spiritual nexus in a territorial community to bind the people together? How can we find such a nexus in the cold contiguity of the State?

Now, there can be no doubt that abiding social unity is less a matter of habit and more a matter of customs, traditions and institutions in a compound community, than in one which is simpler. The raw material of the territory is wrought into countless manufactured articles and industrial life consciously responds to the need for co-operation by its principle of the Division of Labour. There is no part of Lotze's "*Mikrokosmos*" more striking than the chapter in which he relates how man in industrial societies projects his personality into his tool and finds an extension of his merely individual existence in the social institution. It is often a long historical process, this of forging the links which make the citizens of the State members one of another, but, when the links are once forged, there is no other power strong enough to rend them apart. When the State is in danger all other loyalties seem impotent to impair the force of an appeal to the patriotism of its citizens; while, on the other hand, the need is felt for the compound combination to act as a co-ordinating centre for those that are simpler, to prevent the struggle for existence from becoming so violent as to discount all possibility of co-operation, and, as in the case of Industrial Trusts, to secure that none of the simpler societies may develop social elephantiasis. Religious societies, too, have endeavoured to compete with it in this respect, and the mediæval church offered its organization as a rival activity to the secular power; but it

is the State that has been able to leave its impress on social institutions on the largest scale and over the most extensive spatio-temporal continuum. The earth's territorial surface is being covered by States and their mandatories; and the new States founded as a result of the Great War are experimenting with constitutions, and showing a belief in a League of Nations or States as the most definite hope for the future. Does not all this make it quite clear that it is the Great State which is vindicating the most plausible claim to be the chief co-ordinating centre of the most complex social life ?

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W.C.1, on April 6th, 1925, at 8 p.m.*

XI.—ÆSTHETIC KNOWLEDGE.

By P. LEON.

To experience colour, sound, taste, a new thrill, to appreciate and enjoy the light, movement of life, to gauge its seriousness, savour its joy and penetrate its gloom is, I take it, to have knowledge, and the object of this knowledge is constitutive of the world. We shall scarcely deny this if we consider what kind of knowledge and what sort of a world we should be left with if we removed from them the experience of the so-called secondary and tertiary qualities; if we were left only with the comfortless company of the dreary formulæ of mathematics, the sciences and philosophy. The above experience may be distinguished as knowledge of quality: its objects are the entities to which the term qualities secondary or tertiary are applied, in it alone do we know what anything is like, *quale sit*, all other knowledge being knowledge only *about* a thing, knowledge of its relations.

Æsthetic or imaginative knowledge, the experience we have with the help of works of art, both in their creation and their appreciation which is re-creation, is knowledge of quality. Through works of art we know serenity, majesty, mysteriousness, pathos, tragedy, the gorgeous gloom and splendour which is the Agamemnon of Æschylus, the serene and tranquil horror which is the Oedipus Tyrannus of Sophocles, the bright speed of Homer, the brooding pathos of Virgil. Be it well understood that any of these words and phrases is general and consequently inadequate; for the full realization of a unique quality it is necessary to have a whole work of art, the Agamemnon or the

Œdipus Tyrannus which is both the full description of the quality and the quality itself. The essence of a work of art, whatever its subsidiary aspects, such as those of representation or imitation and of theory or doctrine, is that it is a synthesis which is the revelation of a new quality such as we should have if we could suddenly become aware of the colour of ultra-violet rays. The converse, I think, can also be maintained, namely, that all knowledge of quality, when adequate and complete is art, the awareness of a bare secondary quality being a limiting case or an abstraction from a richer experience.

In this paper I should like to examine briefly the formal characteristics of æsthetic knowledge mainly with a view to testing its claims to being absolute knowledge. These claims are often conceded to it by philosophers who, weary themselves of their own search for the absolute, end up by saying that it is perhaps to be found by the artist and poet more than by anyone else ; these claims are also implicit in our feeling about any great compelling work of art, the feeling that however broken and confused the light we get from theories, however futile our efforts to realize goodness, here we have something final, ultimate, something that we shall meet with as such in heaven, something without which, at any rate, heaven would be but a sorry place.

The first characteristic of æsthetic knowledge is the oneness in it of subject and object, of the knowing and the known. Even if as idealists we hold that that is the real mark of all knowledge, we must admit that in other knowledge the separation between subject and object, even though ultimately erroneous, does arise, whereas in æsthetic knowledge it is not present and cannot be present. Æsthetic knowledge is essentially a living through. Its object, quality, can be indifferently called the quality of the world or of our minds or souls. We may therefore speak of the æsthetic experience, meaning to indicate by experience the oneness of the knower, the knowing and the known.

Secondly, the æsthetic experience is knowledge in which there is not present the distinction or separation between subject and predicate. It is all subject or all predicate, and there is no assertion or predication. A poem or a piece of music may be considered as an adjectival texture, as quality enjoyed, realized, contemplated, but not predicated of anything. It is never "about" anything. True, a literary work of art is made up of propositions, but that these are not real assertions or judgments can be seen when we reflect that the import of a work of art would be epitomized in a descriptive phrase, a description of a quality, rather than in a proposition or judgment as would be the case, say, with a book of science, history or philosophy. A poem can be merely exclamatory, and in its real import always is a mere exclamation, which you cannot meet with "Yes" or "No," or with argument, as you can a judgment.

As there is no assertion, so neither is there the distinction between truth and error, appearance and reality. The æsthetic object, the æsthetic experience is essentially appearance and essentially real. There can be no argument about its reality, just as there can be no argument about the reality of any apprehended colour. Argument in such a case, I take it, can only arise when we start attributing the colour and attributing it to one thing rather than to another. But the æsthetic experience as such is merely apprehension of quality, free from every act of attribution. Being non-assertive, it in itself does not contain the assertion of the reality or unreality of its object or of itself. But looking at that object and experience from a point of view other than the æsthetic, say as philosophers, I do not see how we can ever deny reality to it. A work of art either helps us to apprehend something or it fails to do so. But what we apprehend must be real, it being the same as the apprehension. It is imaginary because grasped by the imagination, but nothing is added or taken away from its status by saying that it is merely

imaginary. That holds true if we remember that what a work of art really gives us is what I have called a quality and not anything else. I do not mean that Centaurs are to be found in the animal kingdom because someone has painted them, or that the exploration of the skies or of Mount Olympus will reveal to us gods leading a riotous and immoral life because we read of them in Homer.

The æsthetic object *qua* æsthetic object, is, and is always apprehended as, essentially one, free internally from relations. It is an immediate unity or unity of quality and is thus distinguished from other unities, *e.g.*, the unity of a thing, a system, a universal, teleological unity. All these latter can only be apprehended by thought and their apprehension is the apprehension of relations. A work of art when not enjoyed as a work of art, when consequently it is not an æsthetic object, can of course be analyzed into parts and their relations to each other: a tragedy is divided into acts and scenes and sentences, a picture into different figures and colours uniting in a harmony, a temple into innumerable parts. But in the moment of æsthetic enjoyment there are not parts seen or rather thought in their relations. The relations denoted by balance, harmony, proportions, contract, form, are relations apprehended in immediacy, *i.e.*, such that both the relations and the relata are all one quality. I mean that in spite of all diversity discoverable by analysis in spite of its being somehow dependent on the apprehension of diversity and on different acts of apprehension, the enjoyment of the Agamemnon is essentially the apprehension of one quality "gorgeous gloom," or whatever we may call it, and that we have here essentially the same unity as there is in the apprehension of a flash of light though physical analysis reveals the multitude of billions of vibrations, or in the apprehension of "glittering sharpness" analyzable psychologically into visual sensations and tactile images, or in that of genial light, warmth and

freshness, analyzable into organic, kinæsthetic and many other sensations and images.

Free in this sense from relations internally, the æsthetic object is also free from relations externally, from relations to another. It is complete, self-sufficient, isolated, a universe, and true individual. It is this which gives the æsthetic activity its repose and perfection. Any æsthetic object must obey the law which Aristotle lays down for a tragedy: it must have a proper beginning and a proper end; nothing outside it leads to it and it leads on to nothing outside itself. There is nothing else which is an "it," or is called an individual, that possesses this individuality and self-subsistence. Everything else exists in an infinite environment and has its being in its relations and interactions with this environment, never completely within itself. Consequently, no other knowledge has the completeness and satisfactoriness of the æsthetic experience. It is this which chiefly gives it its claim to being absolute or typical of the absolute. That claim has by some been made for history. But history, it has to be admitted, is knowledge of an infinite whole whose parts are infinitely inexhaustible or unknowable, i.e., it is a knowledge which can never be complete or proper knowledge. All knowledge other than the æsthetic experience suffers from this infinity. Whether it be a single judgment, a whole book, or department of science, it is never self-subsistent. It is predicational: it attaches a predicate to a subject, the nature of which is apprehended in part at least elsewhere, outside the judgment or book or system. A judgment or system of judgments consequently always refers us outwards, to other apprehension: it forms part of a larger context to which both its beginning and its end point; in fact it has not properly either a beginning or an end. Its interests depend upon questions asked and answers given elsewhere; the dwelling in it is a continual excursion from it, and such excursion, such questioning, and endless reference

and discursiveness is what constitutes the apprehension, the understanding, the knowing.

But it is not so with the æsthetic experience ; the latter is an absorption ; it is complete and self-contained ; it is marked by repose and finality. It has these characteristics because its object is a complete self-subsistent universe. We do not come to a poem with questions, and its interest does not depend on answers given elsewhere ; the asking of any questions does not constitute the æsthetic apprehension, but on the contrary, like any reference to anything outside the poem, song or picture, it is fatal to the æsthetic attitude. Of course, the æsthetic object can, when we are not appreciating it as such, be related to others. We can give the sources of a drama, compare it to others and make it the subject of an infinite series of judgments. But the point is that such knowledge does not constitute the act of apprehending the drama *qua* drama, i.e., seeing it acted and enjoying it, but is on the contrary incompatible with it and impossible till after the æsthetic apprehension proper is over.

I have emphasized the unity of the æsthetic object, but it is a unity which covers a rich variety or multiplicity, discoverable by analysis though not æsthetically apprehended as a many. This manyness in one is most obviously realized as a synthesis of the senses. Art is said to be sensuous, to appeal primarily through one of our senses, through hearing or sight. But then we must say that one of the senses does the work of all the rest, and all in one act. So in music we can be said to hear wetness, hear colour, a perfume, a taste. In a picture, we see warmth, we see loudness, sweetness and freshness, sharpness, etc. Hence it is that critics tend to speak of music in terms of colour and of painting in terms of music.

But the elements which enter into the æsthetic synthesis are not merely sensuous. It is all experience that may enter into it. Art, in the words of Pater, "presents us with a kind of

profoundly significant and animated instants, a mere gesture, a look, a smile perhaps—some brief and wholly concrete moment—into which, however, all the motives, all the interests and effects of a long history have condensed themselves, and which seem to absorb past and future in an intense consciousness of the present.” It is this characteristic which Coleridge marks by calling the Imagination “*esemplastic*,” and “*coadunative*.” It is best illustrated again from Pater in his description of the *Monna Lisa*. The *Monna Lisa* is primarily colour; but it is colour which “is expressive of what in the ways of a thousand years men had come to desire . . . It is wrought of strange thoughts and fantastic reveries and exquisite passions . . . All the thoughts and experiences of the world have etched and moulded there . . . the animalism of Greece, the lust of Rome, the mysticism of the Middle Age, with its spiritual ambition and imaginative loves, the return of the Pagan world, the sins of the Borgias.” We may not all accept this particular analysis as authentic; but we must admit that some such “*coadunation*” is effected by all great art. Such synthesis points to some experience where all the past, all experience is resumed and preserved all in one in an immediate unity. That experience cannot be anything other than the Absolute, but its type and the approximation to it is to be found in the æsthetic experience only.

The æsthetic experience also presupposes and synthesizes all other types of experience. “Poetry,” Coleridge says, “is the blossom and fragrantcy of all human knowledge, human thoughts, human passions, emotions, language.” “It is,” according to Shelley, “the perfect and consummate surface and bloom of all things; it is as the odour and colour of the rose to the texture of the elements which compose it; as the form and splendour of unfaded beauty to the secrets of anatomy and corruption.” To be less poetical, the æsthetic experience pre-

supposes perception : to appreciate an æsthetic object we must perceive a picture, hear a poem, etc., to create an æsthetic object we must have lived through at least ordinary perceptual experience. While not itself conceptual, it presupposes the concept and indeed it contains it, though not explicitly in the form of argument or doctrine, but in an implicit immediate form as a philosophy may be contained in a drama of Æschylus. It is not in itself ethical, and its value is not ethical, but it presupposes the ethical experience in the sense that no art, at any rate, no great art and least of all great poetry can be produced or appreciated except by men who are sensitive to good and evil. Like the absolute, though in itself neither true nor false, since it is not judgment or assertion, the æsthetic experience contains both truth and error. The doctrines or judgments which we may extract from a poem, and which we say are contained in it implicitly, may be either true or false without affecting its own value which is beauty. For error we must find a place in the universe since it is a fact. It is difficult to see how it can find a place in truth itself even though we call it a "negative moment" in it. That place it can find in a value other than that of truth, in beauty, in the æsthetic experience. Errors like the mythology of paganism or the cosmography of the Middle Ages cannot *qua* errors be resolved in the complete body of truth, if such there be. But they gave a special colouring to men's minds, produced a special quality, a special immediate experience, expressed in art and in this guise they find their place in the whole.

Similarly, though in itself neither ethically good or bad, the æsthetic experience contains both good and evil in the way in which the *Monna Lisa* may be said to express spiritual ambition and imaginative loves, as well as the sins of the Borgias and the lust of Rome. Just as for error so for evil we must find a place in the whole, and this can only be done because the value of the whole is not ethical but beauty. That the world as a moral

phenomenon is a deception, and can only be justified as an æsthetic phenomenon, was a view at one time held by Nietzsche. Because this view seems singular and rather mad, some expressions of it are worth quoting. The following is from Joseph Conrad :

"The ethical view of the universe involves us at last in so many cruel and absurd contradictions . . . that I have come to suspect that the aim of creation cannot be ethical at all. I would fondly believe that its object is purely spectacular : a spectacle for awe, love, adoration, or hate, if you like . . . Those visions, delicious or poignant, are a moral end in themselves."

Another modern writer says : "Every great artist, a Dante or a Shakespeare, a Dostoevsky or a Proust, thus furnishes the metaphysical justification of existence by the beauty of the vision he presents of the cruelty and the horror of existence. All the pain and madness, even the ugliness and the commonplace of the world, he converts into shining jewels. By revealing the spectacular character of reality he restores the serenity of its innocence." Such a view can only seem singular and mad if we forget that beauty, "the spectacular," is a value.

Because of the above characteristics we may say that the æsthetic experience is above all other types or forms of experience or knowledge, it is that to which the others lead up, in which they are resolved, and in which they find their reality. It is the unification and reconciliation of them. Its features and functions are those which are attributed to the absolute : immediacy, the fusion of relations, self-subsistence or individuality, the character of a universe, the synthesis of subject and object, subject and predicate, appearance and reality, the one and many, truth and error, good and evil.

It would be tempting to say that in art we have absolute experience itself. But this would leave us with the Absolute as a plurality of the worst kind, a multitude of unrelated members,

since there are many æsthetic objects each autonomous and completely independent. Or we might speak of the Absolute as continually making and unmaking itself, re-creating itself into fresh æsthetic objects, through the conflicts and contradictions of other forms of experience. But whereas the æsthetic experience itself does present the characteristics which we require of the Absolute, the process from one æsthetic moment to another does not, though no doubt our own experience is such a process.

We must therefore be content with saying that æsthetic experience alone does not possess the unsatisfactoriness of all other knowledge, *i.e.*, knowledge which is judgment or predication and that therefore it alone reveals reality satisfactorily. Beauty is the highest category and alone applicable to the Absolute, *i.e.*, to the unity of all experience or all experience in a unity. Actual æsthetic objects are only types of this absolute or partial revelations of it.



*Meeting of the Aristotelian Society at 21, Gower Street, London,
W.C.1, on April 20th, at 8 p.m.*

XII.—THE RELATION OF PEDAGOGY TO PHILOSOPHY.

By DR. JESSIE WHITE.

OWING apparently to its suggesting the little liked word pedagogue, the term Pedagogy is comparatively seldom used in England. The European Universities have chairs of Pedagogy, but English universities usually prefer to speak of Professors of Education.

Yet the province of Education is far wider than that of Pedagogy. Education begins at birth and only ends with death. There is education in vice as well as in goodness, education in folly as well as in wisdom. The factors that enter into it are very numerous, and different for each one of us, but the most important of all is our own nature. For two individuals going apparently through the same experiences, receive from them very varying gains.

The narrowing of the idea of education to anything less than this continuous process from birth to death has many undesirable consequences. It confuses schooling with education. While the latter must be prolonged, it is not always good to lengthen schooling. To do so may produce an effect the opposite of that desired. It is not necessary that the relation of taught to teacher, of pupil to tutor should be continued throughout life. To regard education as what is learnt through the professional teacher is to divert attention from the educational forces which make for adult education. These educational forces permeate society and there is not the least doubt but what they could be much stronger than they are if people did not, through inertia and a lack of conscious realization of the way in which they operate, tend to throw the whole burden of educating on the professional teacher whose proper business is with the infant and adolescent in the period of tutelage.

Who really is the adult whose education is going on most satisfactorily? Is he not the man who is filled with a determination to make the best of himself and his job? who enters fully into the responsibilities involved in the relationships which he forms, and more particularly those of marriage and parenthood, the latter being the most educative of all, one which needs Kant's ethical dictum as to regarding humans as ends in themselves more perhaps than any other? Though here parenthetically I might remind you how in his book on Pedagogy Kant inculcates reserve as a means of enabling us the better to use other people for our ends.

The professor of education as distinguished from the professor of pedagogy should be one who takes the whole of life as his province. He should interest himself in individuals in their social setting, concerning himself not so much with outstanding figures whose lives are recorded in autobiographies and biographies, as with the rank and file, that enter our factories, our warehouses, our offices, our shops, our prisons and lunatic asylums. He should, like Mr. Alexander Patterson, the author of "Under the Bridges," have much to tell the Professor of Pedagogy about the things that matter most in the period of tutelage. He should be able to throw light on the educational effect of law and institutions, of business organization, of current opinions, of cinemas, of religion as taught and practised to-day. His work should embrace that carried on at present by the social researcher, by the writer of fiction who colours his facts to suit his artistic purpose, by the Press which very often misrepresents educational ideas and whose facts are frequently selected under the bias of a particular political party, and by the Church, which, by the one sovereign remedy it offers for all our ills frequently excuses itself from considering the means whereby ills may be eradicated. A professor of Education with a proper organization of the thousands of teachers capable of being trained to act as social scouts would be equal to such a task.

He would, if he could not solve problems, at any rate give a broad and impartial survey of the facts to be taken into consideration. He should be endowed with breadth of vision and a robust moral sense. Mr. Bertrand Russell has, I think, very aptly characterised the good life as one inspired by love and guided by knowledge. He could by his lectures on marriage to adults make sex-education in schools unnecessary. He could help fathers and mothers to a wise parenthood as some of the psychoanalysts from their particular angle try to do to-day, and as Mr. Bertrand Russell in his brochure, "What I Believe," sets out to do from his particular point of view. He should also attempt to state the educational bearings of the various solutions proposed in industrial differences. He could lay bare how misconceptions as to the function of capital arise and spread. He would, in fact, be an educationist and a moralist dealing with real questions in the education of the adults in society. His pre-eminent function would be to keep alive the idea that the education of the adult is continuous, and that its quality depends on the care with which a man verifies facts and the relations between these facts, the intelligence which he puts into his work and the humanity which he displays in all the relationships that his occupation and home life bring him.

We all remember the picture Dickens draws of Mrs. Jellyby, who was so occupied by the needs of heathen children in far-off lands that she could not attend to the wants of her own. It sometimes seems as though under the influence of the idea of education which makes it an extension of tutelage, the working man may be so busy, for instance, with the study of Plato's Republic as not to have time to gain a knowledge of his own children.

It must not be supposed, however, that the intellectuals are less mindful of parental responsibilities than others.

An Italian, writing recently of English education, contrasts the Englishman's idea of home with the Italian's of "famiglia."

"It is his pipe, his arm-chair and his fire that make home for the ordinary Englishman, not his family. He loves his home like a cat, not a dog, and parts from his children without difficulty."

I should think it undeniable that the ideas of most Englishmen on the upbringing of young children are crude in the extreme, and that at a time like this when so many different ways of looking at this problem are current, it is desirable that the education involved in fatherhood should be re-emphasized. What Kant said in his lectures on Pedagogy more than a century ago, "that the children of the working classes are more spoilt than the children of those of higher rank," is probably true to-day, and if the W.E.A. had taken as one of its aims "education for parenthood," instead of narrower cultural aims or the working out of a Labour Economics, it might have proved even more valuable than it has.

Professor Dewey distinguishes Pedagogy from Education and defines it as a science of methods. Gentile speaks of the "doctrine of methods," "the so-called methodology" which he says is an important part of didactics and a very considerable section in the whole field of pedagogics. Here pedagogics must mean education in the wider sense. Both Dewey and Gentile are at one in thinking that method and the subject matter of instruction are not separate affairs. At bottom their dislike of a methodology apart from content rests on very much the same grounds. Dewey attributes the blame for this idea to dualistic theories of knowledge, for dualism pre-supposes "a ready-made systematized classification of the facts and principles of the world of nature and man. The province of method then becomes a consideration of the ways in which this antecedent subject matter may be best presented to and impressed upon the mind, or, otherwise expressed, a consideration of the ways in which the mind may be brought externally to bear upon the matter so as to facilitate its acquisition and possession." It is only hastily adopted principles with the assumption of an average

child that has blinded educationists to the artificiality of teaching method apart from subject-matter and special method without reference to the individual taught. Professor Dewey, rather strangely to my mind, says that, at least in theory, it would be possible to deduce a complete theory of methods of learning without a knowledge of the subjects to which the methods are to be applied. This suggests that pedagogy might be deduced from psychology, if psychology were a more complete science than it is. This view may be in the mind of Professor Spearman when he calls pedagogy the satellite of psychology.

The reason, however, that Pedagogy is regarded by scientific experts as futile, Professor Dewey admits, is because these experts are ignorant of these methods. This does not prove that the search for methods is unwarranted, however.

Between Education and Philosophy Professor Dewey sees a very close connection, and he has introduced philosophical discussion into educational works in a way that is not easily intelligible to those for whom they are intended. He regards Philosophy as the outcome "of wide-spread and widely felt difficulties in social practice." This fact, he thinks, is disguised, because philosophers have become a specialized class and use a technical language very unlike that of the individuals who are experiencing the conflict of interests. To regard education as "the process of forming fundamental dispositions, intellectual and emotional, toward nature and fellow men" allows him to define philosophy as "the general theory of education." "For," he says, "unless a philosophy is to remain symbolic or verbal, or a sentimental indulgence for a few or else mere arbitrary dogma, its auditing of past experience and its program of values must take effect in conduct."

He goes on to say that "public agitation, propaganda, legislative and administrative action are effective in producing the change of disposition which a philosophy indicates as desirable, but only in the degree in which they are educative—that is to

say, in the degree in which they modify mental and moral attitudes."

Now "they" being "the public agitation, propaganda, legislative and administrative action," what he tells us is that these are effective if they are so, since "modifying mental and moral attitudes" is equivalent to "producing a change of disposition." This does not lead us far, and evidently he has not much faith in these methods, for he goes on to refer to the handicap they suffer from the fixed habits of the people affected. The result, as we know, of the passing of a measure rarely wholly satisfies those who have worked for it, for the simple reason that those to whose fixed habits it is antagonistic more or less nullify its working. For this reason Professor Dewey, having far less faith than Gentile in education in its wider sense, wishes to introduce the philosophy of desirable changes into the field of the school as into a more receptive sphere.

He says "the business of schooling tends to become a routine empirical affair unless its aims and methods are animated by such a broad and sympathetic survey of its place in contemporary life as it is the business of Philosophy to provide."

This seems to make not only the aim but the methods of schooling dependent on philosophy. For the benefit of the ordinary student of education, in his text-book, "Democracy and Education," he criticizes a number of theories of knowledge. He suggests that all that are dualistic in character have their origin in "the hard and fast walls which mark off social groups and classes within a group, like those between rich and poor, men and women, noble and base born, ruler and ruled."

Philosophic thinking for him has its differentia in the fact that the uncertainties with which it deals are found in widespread social conditions and aims, consisting in a conflict of organized interests and institutional claims.

He indulges in a series of generalizations about the various classes of philosophers.

“Those whose experience has to do with utilities cut off from the larger end they subserve are practical empiricists; those who enjoy the contemplation of a realm of meanings in whose active production they have had no share are practical rationalists. Those who come into direct contact with things and have to adapt their activities to them immediately are in effect realists; those who isolate the meanings of these things and put them in a religious or so-called spiritual world aloof from things are in effect idealists. Those concerned with progress who are striving to change received beliefs emphasize the individual in knowing, those whose chief business it is to withstand change and conserve received truth emphasize the universal and fixed.”

What the meaning of the words “in effect” is, is not quite evident. To a considerable extent all of us come into direct contact with things and have to adapt our activities to them. Without any reflection on the nature of knowing we are naïve realists, and in practical action we are all, I should say, realists. But a practical realist in this sense can also be an idealist. Indeed, all simple folk who live by the sweat of their brow and on Sundays, like the village blacksmith, go to hear the parson pray and preach, combine realism and idealism.

Why a practical rationalist must have had no share in the production of the meanings whose contemplation he enjoys is not quite clear. Nor is the way in which Professor Dewey uses the word “meaning” altogether clear.

In his section on “Education as Reconstruction,” he says “it is the chief business of life at every point to make living contribute to an enrichment of its own perceptible meaning.”

A statement like this seems to spring from Professor Dewey’s naturalistic view of man. This view is well summed up in Gentile’s saying, “Naturalism reduces itself to the affirmation that we think Nature but do not ourselves exist.” However, to illustrate further his use of the term meaning, after showing how the child who gets burnt by touching a light becomes a child

for whom a certain light means a source of heat, he says that the procedure of the scientific man is the same as that of the infant. "By doing certain things he makes perceptible certain connections of heat with other things which had been previously ignored." "Thus," he goes on, "his acts in relation to these things get more *meaning*, he knows better what he is about, he can intend consequences instead of just letting them happen." He adds: "At the same stroke the flame has gained in meaning; all that is known about combustion, oxidation, about light and temperature, may become an intrinsic part of its intellectual content."

The unsophisticated reader may well ask what is the intellectual content of a flame and wish that these quite simple ideas had been expressed in simpler language. "The acts of a man who has made perceptible connections, previously unknown, between one thing and another, are guided by a greater knowledge of relations," expresses what he wants to say in the first of the two sentences. What he wants to say in the second is that the flame, instead of being experienced as unrelated or with very simple relations, may come to be experienced as the centre of a large number of thought relations if the experiencer so wishes. It cannot be said that all these relations are or may be intrinsic, if that means invariably present to the experiencing mind when flame is perceived or thought of. It all depends on the purpose in hand. It is easy to imagine cases in which just that simple relation between light and burning which the infant is described as gaining is all of which the scientific man need have awareness.

The general effect of books like Professor Dewey's on the mind of a student whose business is to study pedagogy is to make the study seem much less simple than it should be. After all, every intending teacher has not a philosophic bent. Many of the students may be quite satisfied with the kind of philosophy embodied in the religious beliefs in which they have been brought up and which they in turn may have to impart to pupils. You will all remember Croce's account of the upset in his mental

life caused by the lectures on the Philosophy of Religion given by the priest at the head of the Lycée which Croce attended while still a pupil at another school, the result of which was that he gave up religious belief.

At a time when a student's chief business is to learn how to solve practically what Gentile calls the antinomy of Education, it is not fair to him to risk throwing him into what may involve, in the case of the more earnest-minded, a really agonising experience. Hence, although the relation of education in its wider sense to philosophy may be and should be very close, yet the considerations involved belong to the wider sphere outside that of the professional teacher *qua* professional teacher and should operate in this sphere.

The science of pedagogy whose task is to find means to carry out agreed ends must, like other sciences, start with certain assumptions. Like other sciences it depends on observation, experiment and reflection on the results of observation and experiment. It belongs to the type of science which we call inductive and has close affinities with biology as the study of living things. It has certainly suffered from an attempt to short-circuit it into a deductive science by means of the so-called Recapitulation Theory. The word "evolution" occurs far too much in educational literature, especially when it suggests the dangerous doctrine that things progress of themselves without the conscious activity of human beings.

It may be somewhat rash to try to formulate the assumptions made by scientific pedagogy, but for the sake of promoting discussion I will do so.

(1) It assumes immature individuals with marked differences, qualitative and quantitative, whose development can be aided or obstructed both by the nature of their material environment and by the actions of the persons with whom they are in contact.

(2) It assumes that in normal infants there is a powerful impulse towards loving and learning, and that loving and learning

are processes which each individual must engage in for himself with suitable individual help from others.

(3) That although the sciences and arts are constantly growing, yet relatively to the child there is "a ready-made systematized classification of the facts and principles of the world of nature and man" (to use Professor Dewey's words) which a child can be put in the way of acquiring and possessing for himself.

(4) That schooling is only part of the educative process and must be viewed in relation to that wider process.

These, I think, are propositions to which adherents of schools of philosophy or of theology, however diverse, could give assent. They open up a sphere within which the methods of science can operate in the collection of actual facts, in the study of the effect of environment and method on the powers and development of individuals. To some extent it resolves itself into an investigation of obstructions, and this requires careful and painstaking observation of behaviour. This behaviour must be the expression of the pupil's nature if it is to be of value to the teacher, but this nature must not be taken as static. The way Gentile expresses it is "the teacher is the pupil himself in the dynamism of his development. So far from limiting the autonomy of the disciple, the master, as the propulsive element of the pupil's spontaneity, penetrates his personality, not to suppress it but to help its impulses and facilitate its infinite development." Whether this describes the attitude of the teacher, as scientific pedagogist, I should like to hear discussed. It is quite certain that, granted the differences in individualities, a teacher cannot simultaneously play this part for all unless he has means to help him. These means are constituted in auto-educational methods by material appliances which meet the needs of the pupil's spontaneous impulses, and leave the teacher free for the task of loving, which enables him, as it were, to become the pupil in the dynamism of his development.

*Meeting of the Aristotelian Society at 21, Gower Street, London,
W.C.1, on May 4th, 1925, at 8 p.m.*

XIII.—DUNS SCOTUS AND HIS RELATION TO THOMAS AQUINAS.

By C. R. S. HARRIS.

IT has commonly been stated in histories of philosophy that Scotus marks a decline in the development of scholastic thought, and that the almost perfect synthesis between philosophy and theology achieved by Aquinas was so rent asunder by the criticism of his great rival, that the eventual collapse of mediæval thinking into an ill-disguised scepticism was thereby rendered inevitable. The main object of this paper is to demonstrate that such a view rests upon a profound misconception of the philosophy of the Subtle Doctor, and to suggest that it is in Duns rather than Thomas that the philosophic speculation of the Middle Ages attains its richest and most characteristic expression. For if we examine the history of mediæval thought and trace the main lines of its development from the middle of the ninth century to the early decades of the fourteenth, we cannot fail to be impressed by the fact that the Aristotelian revival of the thirteenth century imported into the speculation of Latin Christendom many elements which were not only foreign to the realm of Christian ideas, but which even stood in flat contradiction to the basic conceptions of the Catholic Faith. And it is precisely because the Scotist philosophy, in contradistinction to the Thomist, follows less strictly Aristotelian lines and incorporates many elements of the older Augustinian tradition, a tradition derived from Platonic rather than Aristotelian sources, that it

forms the most complete summing up of the very various and complex tendencies of the mediæval mind. The philosophy of Thomas, on the other hand, represents the Aristotelianism of the Middle Ages at its very purest, purged of the neo-platonist accretions of the Arabian commentators and the platonizing Augustinianism of the older scholasticism, and systematized by a mind whose genius for orderly arrangement and clarity of presentation has rarely been equalled in the history of philosophic thought. But for this very reason it is an inadequate expression of the richer spirit of the Middle Ages. The superimposition of the traditional theology of the Catholic Church on a purely Aristotelian philosophy is almost startlingly incongruous, and to the unprejudiced observer who is not concerned with establishing the truth of either of these incompatibles the harmony between faith and reason seems rather to be conspicuous by its absence. For in the last resort either the Aristotelian philosophy has to be mutilated out of recognition, or else the contradiction left unreconciled, save in the "higher synthesis" of faith and revelation.

It is undoubtedly true that the philosophy of Scotus presents a less complete and finished appearance than that of the Angelic Doctor. For Duns, who was scarcely more than forty years of age at his death, left behind him no such masterpieces of concise exposition as the *Summa Theologica* and the *Summa contra Gentiles*. His thought has to be collected painfully and piecemeal from Commentaries and *Quæstiones* overburdened with vast and dreary masses of controversy from which it is by no means always easily disentangled. But in spite of this apparent fragmentariness, it exhibits when examined a consistency and a real coherence which entitle it to a place among the great philosophic systems of the past. It is in the main a critical reconstruction of the Thomist Aristotelianism in the light of the older Augustinian doctrine of the scholastics of the eleventh and

twelfth centuries, and it represents an attempt to lay down a philosophic foundation for the theology of the Church which, while incorporating with the older tradition those elements of the Aristotelian philosophy which are compatible with the dogmas of the faith, should avoid the fundamental incompatibilities which the doctrines of Thomas had so plainly exhibited.* From the days of Albert the Great (1206-1280) theology and philosophy had pursued their course as separate sciences, each more or less independent of the other. The domains of natural and supernatural knowledge had been carefully marked out. But the Divine Nature inevitably transcended this division, lying as it did partly within one realm and partly within the other. Hence arose the distinction between natural theology and the theology of revelation; the one, a branch of metaphysic, the *θεολογία* of the peripatetics, lay wholly within the region of the naturally knowable; the other, the theology of Revelation, with its dogmas of the Trinity and Incarnation and the whole soteriology of the Catholic Faith, wholly within the sphere of the supernatural, the content of which was indemonstrable by reason. Yet the being of God, under differing aspects, was at once the *subjectum* of both departments of knowledge. The Divinity was thus knowable partly by natural reason, partly by supernatural grace. In His unity the Supreme Being was revealed to the eye of reason, in His Trinity only to the eye of faith. Exactly where the border-line should be drawn between these two kinds of knowledge of the same object was inevitably a matter of dispute. It is in this connection that the highly critical character of the Scotist philosophy makes its influence felt. Duns submits to a long and searching criticism the natural theology of his Dominican rival, and he shows a tendency to restrict somewhat more narrowly the competence

* For an early account of the incompatibility of the Thomist philosophy with the doctrines of the Church, see the *Correctorium fratris Thomae*, written by the Franciscan William Lamarre in 1284.

of natural reason to demonstrate those attributes of the Divine Being which are accorded to Him by the theology of the Church—a fact whose true significance has been widely misinterpreted. On the matter of general principle, however, both scholastics are, as we shall see presently, in substantial agreement.*

Finally we shall find in the teaching of Scotus not only a more complete and harmonious synthesis of the diverse elements of mediæval speculation than in the Thomist philosophy, but we shall also discover certain original elements both in his metaphysic and his psychology which point forward in a manner almost wholly foreign to the thought of the Middle Ages, to the speculations of the modern era.

II.

The common misconception of Scotus' doctrine on the relation between philosophy and theology rest upon a double foundation. Partly owing to the attribution to his pen of certain sceptical propositions embodied in the *Theoremata*, which contradict expressly the doctrine laid down in all the most important of his commentaries and treatises, and partly owing to a misinterpretation of the meaning of the term *scientia practica*, it has often been held that the teaching of the two great scholastic masters on this question was widely different, and that whereas Thomas is at great pains to show that the deliverances of natural reason are in harmony with the doctrines of the Church, Scotus is always laying stress on their apparent contradiction, by his insistence on the inability of natural reason to give us any certain knowledge of the Divine Nature. But a more careful examination of the facts will show us that no such great discrepancy exists. The critical question of the authenticity of the *Theoremata* which

* For detailed discussions of this question, see A. Schmidt, *Die thomistische und scotistische Gewissheitslehre* (Dillingen, 1859); P. Mingos, *Das Verhältniss zwischen Glauben und Wissen, Theologie und Philosophie* (Paderborn, 1908).

contain statements of a profoundly sceptical nature not found elsewhere in those writings which are known to be authentic, is a matter of some difficulty, and can scarcely be said as yet to have been solved in an entirely satisfactory manner. Nevertheless I believe we shall be justified in regarding the work as spurious.* The meaning of *scientia practica* calls for a somewhat lengthier discussion.

Following the classification of his fellow Franciscan, Roger Bacon, who was also like himself a student at Oxford, Scotus calls theology a practical science in contradistinction to Thomas, who, while recognising its practical side, ranks it among the speculative sciences. (*Summa Theologiae*, I, q. i, art 4.) Now by a practical science Duns means a form of knowledge which not only illumines the intellect, but is also directive of the will, and one of the examples which he gives, is that of the doctrine of the Trinity, which not only teaches us the intellectual truth of the triune nature of God, but also bids us love Him, not merely as One but in His Three Persons. (*Opus Oxoniense*, Prologus, q. 4.) He does *not* mean by the term practical to imply any inferiority in respect of certitude, and expressly guards himself against any such interpretation (*e.g.*, in *Reportata Parisiensia*, Prol. q. 3). But he cannot concede to theology proper the status of a (speculative) science in the strictest sense of the word, because his conception of a science is the Aristotelian notion of *ἐπιστήμη*, *i.e.*, strict demonstration from self-evident truths, whereas the

* The authenticity of the *Theoremata* has been denied by several modern scholars, *cf.* Fr. Deodat de Basly, in *Archivium Franciscanum Historicum*, vol. ix (1918), pp. 3-31; Michalski, *Les sources du criticisme et du scepticisme dans la philosophie du XIV siècle* (Cracow, 1924); E. Longpré, *La philosophie du B. Duns Scot* (Paris, 1924, pp. 29 *sqq.*). The *Theoremata* as published by Wadding are obviously made up of a collection of disconnected fragments, and it may well be that the *Tractatus de creditis* (theorems xiv-xvi) are spurious, while some if not all of the rest are authentic.

truths of revealed religion are not self-evident, but arrived at only by revelation—a fact which though it in no way derogates from their certainty, does deny them a strictly scientific character. Nor does he in any way imply that considered in themselves the truths concerning the divine nature are not necessary truths, in fact he distinctly and frequently states that they are of such a nature: All he is concerned in maintaining is that they cannot be known by us scientifically. Thomas, on the other hand, while holding the same view as Scotus concerning the nature of scientific knowledge, yet attempts to bring the theology of revelation into line with metaphysic by regarding it as a science which is dependent upon necessary principles which are known as such, not by us, for they are given to us only by revelation, but by God himself and the blessed in heaven, just as the musician *qua* musician is dependent upon principles which belong not to the science of music, but to that of mathematics. Duns meets this view by pointing out that at any rate in this life we have no knowledge of the theology of God or His Saints, and that therefore *our* theology cannot be derived from it according to strict scientific method.

On the main principles, however, the two doctors are in fundamental agreement. Both maintain that certain truths of a theological nature, *e.g.*, the existence of God, His unity, wisdom, etc., etc., are demonstrable by natural reason, arguing *a posteriori* from the nature of the world as given empirically in experience, while the main dogmas of the Catholic Faith can be known only by revelation. In detail there are, however, a number of differences. Duns rejects as not strictly valid Thomas' deduction of certain of the divine attributes (*e.g.*, Omnipotence), thus restricting somewhat more narrowly the competence of natural reason. This divergence may be due, as has been suggested, to the very rigid view taken by Scotus of the nature of logical demonstration, his ideal being that of mathematical proof,

whereas Thomas is satisfied with the somewhat less rigorous methods of the ordinary logic of the schools.*

III.

The logic of Scotus follows fairly closely what may be called the standard pattern of the late half of the thirteenth century. It may be summed up in the three-fold distinction of the universal as *ante rem*, *in re*, and *post rem*. This doctrine of the moderate or "Aristotelian" realism was derived from the Arabian commentators, the most important source being the work of Avicenna. *Intellectus in rebus agit universalitatem*. As Prantl has pointed out in his history of logic, this extraordinary combination of conceptualism and realism is somewhat difficult to follow, and in Albert and Thomas especially it becomes almost impossible to disentangle the various threads of doctrine which are anything but easy to harmonise. The doctrine of Scotus, however difficult the distinctions spun by the Subtle Doctor, represents the most mature and, indeed, the most consistent develop-

* Ever since the time of Grossetête mathematics had formed an important part of the Oxford curriculum in the arts course, whereas in Paris mathematics seem to have been but little studied. Duns exhibits a considerable familiarity with the mathematics of his time, in a way which is quite foreign to Thomas, and in his *De primo principio* he makes an attempt to deduce with mathematical rigour the existence and attributes of the Deity.

It is interesting to note in this connection that whereas Thomas in his *Gottesbeweise* lays his greatest stress on the physical proof, *Quidquid movetur ab alio movetur* (Cf. Ar. Phys. VIII, c. 1.), Scotus rejects it on the grounds that it is possible to conceive a self-moving substance. In fact, his physics contain hints of a dynamism which is quite unaristotelean.

ment of this mediæval epistemology,* though it has often been misinterpreted, and that in contradictory fashion. For whereas some would find in it the seeds of nominalism, others accuse it of the opposite error of extreme realism. But as Dr. Minges has pointed out in his admirable monograph,† neither of these criticisms is really justified. Duns, in attempting to find some metaphysical basis for the ordinary scholastic logic, tries to steer midway between a nominalism which will lead to scepticism, and a realism of the platonizing type of the earlier scholastics, e.g., Anselm. The *universale in re* is the objective ground of our universal ideas, *genera species*, etc., which are real unities, in so far as they represent a real element in things. But this unity of genus or species is not to be interpreted as a numerical unity: it stands half-way between a numerical unity and a purely conceptual one, i.e., a unity arbitrarily imported or manufactured by the knowing mind. Thus the real unity which lies at the basis of the universal idea "man" (the universality of which as such is given to it by the knowing mind in so far as it conceives "man" as a universal concept) is that common element in the real individuals, in Plato and Socrates, which makes the mind abstract from them a common notion "man," rather than, say, from Socrates and a stone.** And thus it is that to each universal idea there corresponds *in re*, a distinct grade of being, which is the real counterpart of that universal notion. The unity of the universal is thus a *unitas naturae*, a unity of kind, and not a numerical unity, and Duns expressly guards himself against the assumption that the common essence "man" realized in Plato and Socrates is numerically one. This is true only in the case of triune unity of the Blessed Trinity where numerically the same essence is realized in the Three Persons. The individuals in a species are

* Prantl, *op. cit.*, Vol. III, p. 202.

† *Der angeblich exzessive Realismus des Duns Scotus* (Münster, 1908).

** Rep. Par. II, Dist. xii, q. 5.

numerically distinct, they are "one" only in so far as in them exactly similar essences are realized.

But it is in dealing with the problem of induction that Scotus makes his most original contribution to the logic of the Middle Ages. He raises the question as to how it is possible by experiments to establish inductively the existence of universal laws of nature, for induction to be a logically valid form of inference presupposes a complete enumeration of all the instances. How is it, then, that a few experiments suffice to establish a necessary connection between two events? It is because all natural (as opposed to volitional) causes are disposed only to one effect, a proposition which Duns regards as self-evident.* We clearly have here an attempt to formulate the principle of the uniformity of nature almost in the manner of an *a priori* category. A foundation is laid for a philosophy of science differing widely from that of Aristotle, and Scotus inclines strongly to a theory of physical determinism which differs markedly from the Aristotelian Physics. For Duns, as we shall see, places the source of contingency not in $\psi\lambda\eta$ or matter but in the operation of the will, whether human or divine. But this fruitful conception is never adequately developed, and he never succeeds in establishing a new logic of induction. The weight of the Aristotelian tradition is too strong for him, and after throwing out this suggestive conception, he quietly passes by.

In his general theory of knowledge Scotus follows closely the Aristotelian model in the form in which it was elaborated by Albert and Thomas. He accepts the theory of the abstraction, by the active intellect, of the universal idea or *species intelligibilis* from the phantasm derived from sense perception, but in one point he shows an important divergence from the theory of Aquinas. True to the scholastic maxim, *Universale intelligitur*,

* Op. Ox. I, Dist. iii, q. 4.

singulare sentitur, Thomas insists that the quiddity or essence of the material thing, i.e., the universal realized in matter, is the adequate object of the human intellect. But this *species* or *quidditas* which is the object of the knowing intelligence is of itself a universal and not a particular; how then is the singular known as such? The answer which the Angelic Doctor gives to this puzzling question is not easy to understand. The intellect can know the singular only *per quandam reflexionem*, for the matter which is the principle of individuation is itself unknowable (Aristotle) and hinders the understanding, and yet the singular is somehow knowable. And in order to account for this strangely inexplicable form of "reflexive" knowledge, he is driven to postulate a *ratio particularis* whose business it is *conferre de intentionibus particularibus*—a truly desperate expedient!* The same problem presents itself in the Scotist epistemology, and Duns attempts to guarantee to the intellect some kind of direct knowledge (as opposed to mere sense perception) of the singular as such. He avoids the initial difficulty of Thomism by making not the quiddity as such the *objectum primum* of the intellect, but the notion of being in its various determinations, and all real being is *de se* individual. The question then arises whether the particular and universal determinations of the same concrete reality or *res* are known by means of the same or by means of different *species* or ideas. The answer given to this problem is ambiguous. In the *De rerum principio*† the latter alternative is accepted, in the *Quaestiones de anima* the former, but in both

* Cf. S. Th. I. q. lxxxvi, art. 1; *De veritate*, q. 1, art. 6; *De principio individuationis*, edition of 1570 (Rome), vol. xvii, ff. 206 sq. (quoted by Prantl, *op. cit.*, vol. iii, p. 111).

† The authenticity of this treatise has of late been questioned by Dr. Carreras y Artau in his monograph *Ensayo sobre el voluntarismo de J. Duns Scot.* (Gerona, 1923), and denied by M. Longpré (*op. cit.*), not without good reasons, though I am still inclined to believe it genuine.

treatises, as well as in the Op. Ox., Scotus insists that the singular is intelligible *per se*, even if only by a vague intellectual (as opposed to sensual) intuition; though he admits that it is only when this "vague" intuition has been mediated by universal notions that the act of understanding is complete.* For complete knowledge of a thing is knowledge of its definition, and this can only be given in terms of universal notions. Here again the Subtle Doctor seems to be reaching out after a more modern conception of knowledge which shall transcend the abstract distinction between sensation and thought, without being able to emancipate himself from the formalism of the schools.

IV.

The essential differences between Thomas and Scotus stand out most plainly in the domain of metaphysic, where the discrepancy between the plain implications of the Thomist Aristotelianism and the accepted doctrines of the Church shows itself in the most glaring light. Thomas accepts the Aristotelian conception of the relation of form to matter, and is then forced to spend a vast amount of ingenuity in attempting to escape its awkward consequences. He adopts the peripatetic theory of form and matter as correlatives, form standing to matter as act to potency, or determinand to determinable. Matter is pure potency having no *esse* of its own; it cannot exist without form, it is unknowable *per se* and does not even possess a representative idea in the divine mind; (though somehow God knows it); it is ingenerable and incorruptible, being the *subjectum* of substantial change. So far pure Aristotle; but now difficulties begin to arise. For in the Aristotelian cosmos, matter and form are metaphysical constituents of an eternal world which consists of a

* *Quaest. de An.*, q. xxii.; cf. De Wulf, *Philosophy and civilisation in the Middle Ages*, p. 183.

hierarchical series of substances stretched as it were between the two opposite poles of pure matter, which has no existence or actuality, and pure form, *i.e.*, God; and while each of the constituents form and matter are eternal, the compounds of the two, the concrete substances of the physical world, are alone generable and corruptible in time, the world process being a perpetual and eternally repeated effort of the various forms to realize themselves in a matter which is forever, as it were, eluding their grasp, according to an immanent but unconscious teleology. For God, the form of forms, moves the universe as end or final cause, being himself unmoved, and there is nothing to show that He is aware that a world exists at all. Such a theory could not, of course, commend itself to the Christian consciousness; it has therefore to be mutilated and mangled in order to be fitted into the theological frame. Form and matter are no longer coeval principles of an eternal world; matter is itself a product of divine creation (though how it can be so seeing that it has no actuality of its own, it is impossible to conceive), and the forms which are realized in it are also created, being imitations or ectypes of the eternal ideas in the divine mind, conceived somewhat after the manner of the λόγοι of Plotinus. Thus the whole significance of the peripatetic theory is quietly ignored, and an Aristotelian cosmos suspended from a neo-platonist deity. But the worst is not yet. For besides the pure actuality or form of forms, there are the pure intelligences or Angels, *substantiæ separatae*, which have somehow to be fitted into the scheme. These contain no matter, they are pure forms, yet they are neither εἶδη in the Platonic sense, nor are they eternal, but created. But a "Form" is as such abstracted from time, and all forms exist eternally in the mind of God, and are of their very nature simple. A new mode of composition has therefore to be introduced, a dualism between essence and existence, the latter being to the former as act to potency, in order to safeguard the creature-

hood of these immaterial spirits. Creationism and Angelology thus make havoc of the whole Aristotelian scheme, and while the Aristotelian terminology is retained, the meaning of the underlying ideas has been distorted almost beyond recognition. Finally, the whole question of creation is left philosophically doubtful, for it is in the last resort impossible to prove that the world has not existed *ab eterno*, and though the contrary is actually the fact, it is a fact which can be known only by revelation.

Scotus is able to preserve himself from some, at least, of these major incongruities, by adopting a more Augustinian conception of matter and its relation to form. True to the more conservative tradition of his order, the Minorite follows more closely in the footsteps of the older scholasticism. He regards matter not as the abstract principle of potency, but rather as a metaphysical world-stuff which is of itself neither body nor spirit but serves as the foundation of both. Though devoid of principle determinations and never actually existent in the uninformed state, it yet has an existence of its own; it is a *quid*, in so far as it is the *terminus* of the divine act of creation, and it has its representative archetype among the divine ideas. It is the differentia of creaturehood and is shared by all created existences, Angels, men, and physical substances of every kind. It is called *materia primo-prima* or *metaphysica* to distinguish it from *materia secundo-prima* or *mathematica*, which is *materia metaphysica* quantitatively determined to become the substratum of all substantial and accidental change. The created universe thus exhibits two spheres, the spiritual and the physical. The former consists of spiritual substances composed of *materia primo-prima* directly united to a spiritual form in a union which is indissoluble; in the latter *materia secundo-prima* is united to the various corporeal forms, "elementary," "mixed," and "organic," to make the various generable and corruptible bodies of the physical world, which are constantly changing and passing over into one

another.* The created universe is, to use Duns' own simile, like a great tree the roots of which is prime matter, the falling leaves accidents, the branches created substances, the flowers rational souls, and the fruit angelic spirits.

The conception of a "matter" of created spirits was not new to scholasticism. We find it in Alexander of Hales as well as in Bonaventura. Duns differs, however, on one important point from the great masters of his order. Whereas they postulated different kinds of matter in spiritual and corporeal beings, he adopts the thesis of the Jewish philosopher Avicbron (Solomon ben Gabirol, b. *circa* 1020) who maintained the homogeneity of matter in all created substances, and thus emphasises more strongly the unity of the created world. By this means he is able to escape from the awkward separation of essence from existence, and to build up a cosmology which is not only not inconsistent with the notion of creation, but essentially presupposes it. But he too seems to have found some difficulty in the conception of a creation in time, which in his later works he tells us, is not strictly demonstrable, though the balance of evidence, he assures us, is in favour of it.

But the Thomist doctrine of form and matter raised even greater theological difficulties in connection with the problem of individuation and the theory of the unity of the substantial form. Aquinas, in his attempt to reproduce the pure Aristotelian doctrine, places the principle of individuation in *materia signata*, i.e., matter not as such but as quantitatively determined *sub certis dimensionibus*, a doctrine which contains intrinsic difficulties. For, as Duns does not hesitate to point out, matter having no positive qualities cannot be a principle of differentiation—it is the form that differentiates, and quantity is itself a "formal"

* For the sake of simplicity I omit the consideration of the heavenly bodies which are not subject to the ordinary processes of generation and corruption.

determination, and therefore "universal." But quite apart from these inherent inconsistencies the theological consequences of its rigid application were disastrous. As applied to corporeal substances the theory could be made to work, but when applied to spiritual substances it plainly broke down. For as Angels do not contain matter, what is there to differentiate Gabriel from Michael? Thomas answered this dilemma by making each angel a species by itself—Michael and Gabriel are specifically not merely numerically different. But in the case of the human soul no such evasion was possible. For the human soul is, according to the Angelic Doctor, a specific form united to matter, how then are disembodied souls differentiated from each other—must they not all coincide if it is matter that individuates the specific form—a logical deduction which seemed to lead directly to Averroism. And in the last resort Thomas is forced to abandon his own theory of individuation altogether in the case of the substance "man." For it appears that souls are already individual, they differ from one another by virtue of an "aptitude" to "inform" this or that particular body—an "aptitude" which continues to differentiate them even after death!

Scotus' doctrine of individuation entails no such awkward consequences. He is neither forced to indulge in the fantastic expedient of making each angel a species to itself, nor is he compelled to abandon his own doctrine in a critical instance. According to Duns the principle of individuation lies in the *haecceitas* or *ultima realitas entis*, which is neither "form" nor "matter," but a "reality" which attaches to both. For just as form in general and matter in general together combine to make up substance in general, so "this" form united to "this" matter, constitute "this" individual substance, which alone has real existence. For neither form nor matter really exist as universal,—the universal as such is as purely a product of our thinking,

everything that exists is *eo ipso* individual* *Res communiter non existunt*. The "real" unity of the *genus* or *species* is not a numerical unity but a unity of kind.

Finally, Aquinas' championship of the unity of the substantial form led to a further difficulty. The older scholastics of the 13th century had regarded a substance as composed of (logically) successive determinations, or forms hierarchically imposed on a real entity, prime matter, the last of these determinations, the *forma completiva* giving to the thing its specific nature as granite, horse, or man, etc. Thomas, true to the spirit of a purer aristotelianism rejects this plurality of formal principles; a substance is the union of a specific form with matter quantitatively determined, and the specific form is itself a simple entity. Thus, whereas the more general determinations of the Porphyrian tree, body, animal, etc., are purely the product of abstraction; the specific concept alone is the true universal or form, a real metaphysical constituent of the concrete thing. Man is thus a substance composed of body and soul which are related to each other as form and matter, and it is the same form, the *anima rationalis* which gives to man not only his psychic functions but also his *esse corporeum*. It is the soul which makes the body what it is, and gives it substantial being. Man is therefore, to speak more accurately, not so much body and soul as matter informed by a rational soul. But here difficulties begin to multiply. For at death the soul leaves the body, which to outward view still continues, temporarily at least to exist. But a corpse is not a man, except *sensu aequivoco*. What remains therefore is a *cadaver*,

* Cf. Rep. Par. II Dist. xii, q. 8, n. 8. The Scotist doctrine, which has been largely misinterpreted by Stöckl and other historians of Mediaeval Philosophy, has been most admirably expounded by Minges in his *Realismus*, etc. It bears strong traces of the influence of Roger Bacon. Cf. P. Höfer: *Roger Bacon's Hylemorphismus als Grundlage seiner philosophischen Anschauung*, p. 169 sq.

which is not a human body but a specifically different substance brought into being according to the law *corruptio unius generatio alterius*. It follows, therefore, that the body which lay in the tomb was not the same body as that of the risen Christ, but specifically different—an inevitable but appallingly heretical conclusion.

Moreover, the problem of immortality is raised in a peculiarly difficult form. True to Aristotelian principles Thomas regards the rational soul as the specific form of the substance man. Yet when that substance comes to be corrupted, one abstract constituent, the form, continues to lead a separate and individual existence — surely a very unaristotelian conclusion, which postulates a plurality of specifically identical specific forms existing apart from matter to which they originally gave substantial being. In order to safeguard the doctrine of immortality the Angelic Doctor falls back on the theory of Avicenna that the soul is “form” which is only partially “immersed” in matter, and is therefore immortal in its own right as a *substantia separata*. an argument which Duns criticises on the ground that, on Thomas’ own showing this cannot be the case, for man is emphatically not a separate substance, inasmuch as we have already admitted that man is not merely “soul” but soul and body, a form united to matter.

Finally, it is difficult to see how on Thomas’ theory it is possible to account for original sin. For the soul is directly created by God, and it is the soul which gives man his being both as a physical body and as a living organism. The human parents are not even responsible for the creation of the human body. The specific forms or souls, vegetative and animal, which give to the embryo (or rather the embryos, for they are specifically different), their substantial existence at the various stages of development, are both “corrupted” and the rational soul freshly created is directly “infused.” The body of the child, therefore, is sub-

stantially different from that of the embryo, seeing that it has a different substantial form. There is thus no room for the transmission of an hereditary taint, for it is the divinely created *animatio rationalis* which gives substantial being to the body and soul alike.

These awkward inconsistencies are avoided by the doctrine of Scotus, who by admitting the possibility of a plurality of substantial forms is able to safeguard the separate existence of the body as such, and by postulating the hylemorphic composition of the soul avoids the difficult conception of the individual persistence of "separate" forms. According to Duns' theory the body is a substance in its own right, made up of *materia secundo-prima*, "corporeal" matter informed by a *forma corporalis* which gives to the matter its substantial being as a specifically human body, quite independently of its subsequent union with the life-giving soul. After death this body continues to exist but not for long; it soon decays and breaks up because the "corporeal" form is incomplete and imperfect; it does not satisfy the whole potentiality of the matter, which still possesses the capacity for assuming other forms. The soul, on the other hand, is also a substance in its own right, being compounded of *materia primo-prima*, "spiritual" matter and a *forma spiritualis*, and this union is indissoluble. Notwithstanding the fact that it is thus in itself a *compositum*, it is capable of acting as a form towards the body, which though it too is a hylemorphic compound, stands to the soul in the relation of matter to form. The soul thus acts as a *forma completiva* or *perfectiva* towards the body already informed with its own *forma corporalis* and forms with it a true substantial unity—namely, the living man. At death this unity is broken up, and while the corporeal matter of the body soon takes on new forms in the process of corruption, the matter of the soul remains united to its spiritual form and continues to exist as an independent substance. Man is thus a

cosmological peculiarity, being really two substances temporarily telescoped into one, and this represents his true nature, for he is the horizon of the two worlds, the corporeal and the spiritual, and at one and the same time a denizen of both. Moreover, as the body of the child is truly generated by the parents a channel is left open for the transmission of the *labes* of original sin. We are now in a position to see how Scotus by preserving the older "Augustinian" theory of the plurality of forms is enabled to give an account of the union of soul and body, which is compatible with the accepted doctrines of the church, in a way which was impossible for Thomas in virtue of his adoption of the "one-substance" doctrine of Aristotle.

V.

The most important contribution made by Scotus to psychology is his doctrine of the will, which like so many of his theories has been sadly misinterpreted.* Here again we shall find that whereas Thomas tends to follow closely in the footsteps of Aristotle, Duns moulds his doctrine rather after the model of Augustine and Anselm. The inadequacy of Aquinas' treatment of the will lies in the fact that he is constantly attempting to interpret the phenomena of volition in the intellectualistic terms of the Nicomachean Ethics. Now it was precisely because he never attained to a proper conception of the will at all that Aristotle failed to cut himself loose from the Socratic paradox, and Thomas, though he is perfectly familiar with the scholastic notion of *voluntas* and *liberum arbitrium* is constantly in danger of relapsing into an intellectualistic determinism because he too attempts to account for voluntary action solely in terms of reason and desire. The result is that his theory is very difficult to com-

* See Mingos, *Ist Duns Scotus Indeterminist?* (Beiträge zur Gesch. der Phil. d. Mittelalt. Münster, 1905). *Der Gottesbegriff des Duns Scotus auf seinen angeblichen exzessiven Indeterminismus geprüft* (Vienna, 1906).

prehend, because it is constantly being vitiated and obscured by Aristotelian formulæ, and it exhibits throughout an unmistakable bias towards determinism. For in the last resort the will is always determined by the *apprehensio boni* presented to it by the intellect.* It must of necessity will its own happiness as last end, and though the Angelic Doctor admits that all "goods" are not willed of necessity as means to that end, he implies that this indeterminism really has its root not in the will itself but in the intellect. For just as the mind must necessarily assent to the first principles of knowledge, and to all conclusions validly inferred from these principles, so the will, having of necessity willed its last end, i.e., happiness, must also of necessity will the means that are necessary to the attainment of that end. And, as there are contingent truths which have no necessary connection with the necessary first principles so also there are contingent "goods" which have no necessary connection with man's last end, and these "contingent goods" are not willed of necessity.† Freedom begins only where knowledge leaves off, and Thomas, though admittedly an indeterminist is an indeterminist *malgré lui*. And even here it is difficult to see where freedom comes in, for the will is determined always by the apparent good, and sin turns out finally to be the result of intellectual misapprehension.‡

Scotus was well aware of the inability of Aristotelian intellectualism to provide a psychological basis for Christian ethics, and he attempts to grapple with the problem of the will on lines quite different from those of the Stagirite. His conception of volition is dominated by the distinction between a *potentia libera* and a *potentia mere naturalis*. The latter is determined only to one effect, it is a mere link in the chain of necessity which binds the

* S. Th. I., q. lxxxii, artt. 1 et 4.

† *Op. cit.*, q. lxxxiii, art 1.

‡ See *Summa contra Gentiles III*, Cap. 4. "Quod malum est practer intentionem in rebus."

physical world, the former belongs to the world of spirit and maintains itself contingently towards any given action—it may act in a certain manner or it may not. Freedom of choice is an immediate datum of human experience, and it belongs neither to the intellect alone nor to the will alone but to both together, for without understanding the will is blind and can will nothing. Yet the will is in no way determined by the intellect, it is always the sole “cause” of its volitions. For though Duns never denies the influence of “motives” such as the appetites, habits, moral judgments or the considerations of prudence, he nevertheless maintains that none of these can be said to determine the will to elicit any volitional act, for there is no object however “good” or “desirable”—not even happiness itself—which is of such a nature that the will must of necessity choose it when it is presented to it, by the intellect. For though the will has no power of falsifying the moral judgments of the practical reason by forcing its assent to moral untruths, or of suppressing the natural inclinations of passions and desires, it remains always free to choose between them. Duns seems to have stumbled almost accidentally upon a conception somewhat similar to the modern notion of ideo-motor action: an idea if attended to for a sufficient length of time realizes itself as it were in action, and the source of the superiority of the will to reason lies in the fact that while all willing implies previous intellectual apprehension of its object, all thinking at the same time implies an act of will, and the will is able to determine what objects the intellect shall contemplate. He thus refuses to interpret the volitional process, as Thomas had tried to do, merely in terms of reason and appetite, and he takes great pains to distinguish the actual “fiat” of the will, the *velle elicitedum*, from the mere tendency or motive of “natural inclination.” This “natural inclination” he distinguishes after the manner of Anselm into two kinds, an *inclinatio commodi* and an *inclinatio iusti*, neither of which can compel the will to elicit its

action in accordance with their demands. However strong the lure of passion, the will is always free to follow the dictates of right reason; however cogent the demands of reason it is still open to it to choose the unreasonable course of action. Yet this freedom is not a merely fortuitous spontaneity, for the will is naturally inclined to choose what is judged to be good by the practical reason, and in the last resort, the authoritative dictates of conscience are hard, though not impossible, to resist. The deliberate flouting of our better judgment is a painful and humiliating process, and if attended to long enough the still small voice of reason is certain to prevail. But it is precisely at this point that the ultimate primacy of the will asserts itself, for it is the will which decides whether that still small voice shall make itself heard, inasmuch as it is able to divert the attention of the intellect from the contemplation of one object to another. The will is thus able to turn away the intellect from the considerations which make for the "rational" action and set it to contemplate the pleasure which, momentary though it be, will result from the performance of the wrong action, and so suddenly the deed is done. It would appear then that in the ultimate analysis the freedom of the will consists in the power of attention, a theory which almost startles us by its resemblance to that of William James.

This interesting analysis of psychology of volition is perhaps the most original and important contribution made by Scotus to philosophic thought. He has broken clean through the charmed circle of Greek intellectualism and deepened and enriched, as perhaps no other thinker before him, the significance of a conception which is of fundamental importance to the science of mind. Hence Siebeck rightly sees in his doctrines the beginnings of modern psychology.*

* Cf. Siebeck, *Die Aufänge der neueren Psychologie in der Scholastik*.
2. *Der Scotismus* (Zeitschr. f. Phil. Bd. 95).

VI.

The natural theology of Scotus resembles that of Aquinas in most respects fairly closely; and indeed there was but little room for divergences within the limits of a powerful and well-organised theological tradition. Moreover, in his doctrine of the being of God, Aquinas departs from the stricter Aristotelianism which was so characteristic of much of his metaphysic, and his *θεολογία* is perforce rather neoplatonic than peripatetic. Yet there are several points not without metaphysical importance, in which a considerable degree of difference between the two Doctors may be noted.

Duns begins by attacking the Thomist theory of the analogy of being in God and the creature. True to the neo-platonic tradition of the absolute transcendence of the divine being, which especially in the writings of the pseudo-Denys had so powerfully influenced the thought of Latin Christianity, Thomas had maintained that no predicate can be applied univocally to God and to the creature, for the being of God is different in kind from the being of created things. He is neither substance nor accident. His being falls under none of the ten categories, and any attributes which we may predicate of Him are predicated only analogically; though they are not predicated purely equivocally, they do not bear the same meaning when applied to God as when predicated of the creature.

According to Duns this doctrine savours too much of agnosticism: he will not admit the legitimacy of any analogical predication halfway between univocal and equivocal. Unless "being," *e.g.*, be predicated univocally of God and of his creatures, then any syllogism in which the term is used of both will be a paralogism involving the fallacy of a *quaternio terminorum*. No knowledge of God will, therefore, be possible, not even a demonstration of his existence. For the notion of Being is the

"adequate" object of the human intelligence, and unless God can be included under this notion univocally with created things, He must remain for ever unknowable. We must distinguish, therefore, between the logical genera or categories which comprehend only created being, substance and accidents, etc., and the metaphysical genus of *das Seiende* which includes both created and uncreated being. Everything that exists, quite apart from its logical classification, as genus or species, etc., has a unique or intrinsic degree or mode of being peculiar to itself, which it shares with no other existent, for to be as we have already seen is to be individual. These *modi intrinseci* are of two kinds, finite and infinite, and only the finite modes fall under the categories. Now that which distinguishes the divine Being from the being of any of the creatures is precisely its intrinsic mode—infinity. God is being *esse purum* whereas the finite creature only *has* being *esse participatum*. Duns tries hard to give positive content to the conception of the divine infinity, but he cannot make it serve as a starting point for the deduction of the divine attributes *a priori*, and he is consequently obliged to stop short and retrace his steps. The rest of his demonstration of the Divine Perfections follows closely the *a posteriori* method of the current scholasticism.

A second controversy between Thomas and Scotus concerns the divine ideas, but it is of too obscure and technical a nature to be set forth at length. The central point of the discussion concerns the relation of the ideas to the divine knowing. The divine ideas, according to the Thomist theory, are the archetypes of all created things, and also the *principium cognoscendi* or ground of the divine understanding. They are identical with the divine essence, of which all created things are mere partial images or representations, and it is through them that He knows all things. God knows His own essence perfectly; He therefore knows all the various ways in which it can be concerned. Now the divine

essence may be thought of not only as it is in itself, but also as it is imitable in diverse ways by created things. Inasmuch, therefore, as God knows His essence as thus imitable by the creature He knows it as the proper notion or idea of that creature.* Thus, the divine self knowledge is mediated by the ideal relations (*respectus rationis*) between God's essence and all the possible and actual imitations of it, which relations exist *ab eterno* in the divine mind and constitute the divine ideas.

Scotus like Thomas, regards the divine ideas as patterns or archetypes of created and creatable things, but he refuses to regard them as *principia cognoscendi* or to concede to them any quasi-logical priority over the divine act of knowing. The idea is not the ground of God's knowledge of the creature; it is merely the creature as known. The eternal *respectus rationis* of the Thomists are superfluous. The Divine Essence in its infinity is as such and immediately the *principium cognoscendi* of the totality of intelligible objects.† The exact significance of this very abstruse discussion is not very easy to grasp, but it seems clear that Duns is trying to escape from the somewhat static intellectualism of the Thomist notion and to arrive at a more dynamic conception of the creative activity of the divine mind.

Scotus' conception of the relation of God to the world is dominated throughout by his notion of the divine will and its relation to the Divine intelligence. The divine mind which contains within itself the ideas of all actual and possible creatures knows these of necessity, and would know them even if *per impossible* God were not endowed with the attribute of will at all. His intelligence, therefore, knows immediately and of itself all necessary truths. But the truths concerning the actual world order as actually existent are contingent, and can be known only through the mediation of the divine Will. For God's will, which like His intelligence is identical with the divine essence, has only

* S. Th. I, q. 15, art. 2.

† Cf. Op. Ox. I. Dist. xxxvi; Rep. Par. I, Dist. xxxvi.

one necessary object, namely, the Divine Being itself. He need not will the existence of any creature, and is free to create none, or any or all of the possible worlds, as He chooses, possible being interpreted as meaning self-consistent, *i.e.*, not involving a self-contradiction. It is therefore only by knowing the eternal fiat of His eternal will that His intelligence can know the existent order. The created world is thus wholly contingent yet relatively necessary and determined; contingent because of its absolute dependence on the divine will, which was moved by no necessity to bring it into existence, necessary because it must conform to the conditions of possibility; for in order to create a thing God must of necessity create also the conditions which are necessary to its existence.

We have here a conception of the distinction of the necessary and contingent widely different from that of Thomas. The Angelic Doctor agrees in maintaining that creation was a free act of God and that the existence of the world was in no wise necessary to Him, but at the same time he attempts to preserve the Aristotelian distinction of *τὰ μὴ ἐνδεχόμενα ἄλλως ἔχειν* and *τὰ ἐνδεχόμενα ἄλλως ἔχειν* within a world which absolutely speaking is wholly contingent—*i.e.*, need not have existed at all. The result is a confusion of thought which is very difficult to disentangle. At one time he seems to attribute contingency, after the Aristotelian fashion to *ὑλη**, and to postulate a real contingency, at others he seems to make the distinction between the necessary and contingent due to the complication of causes, and so merely relative to our ignorance, as, for instance, when dealing with the divine knowledge of contingent events.†

But in spite of his bias towards a physical determination Duns never carries his mechanistic principles to their logical conclusion. Though he attempts to formulate the principle of the

* *E.g.*, S. Th. I, q. lxxxvi, art. 3. Cf. S. c. G. III, capp. 4 et 6.

† *E.g.*, S. c. G. III, cap. 72.

uniformity of nature, he limits the divine omnipotence not by any laws of causation in time but only by the abstract principle of contradiction. God can produce immediately, without the co-operation of secondary causes, all the effects which are in the normal course of nature brought about through the medium of a chain of physical causes. But this omnipotence is not strictly demonstrable by natural reason ; it is a fact which can be known only through the medium of supernatural revelation.

VII.

Of the ethics of Scotus we have here no time to speak. His interests are primarily those of a metaphysician, and as a moralist he is in most respects far inferior to Aquinas. His moral theory throughout is haunted by a fundamental confusion, and he makes scarcely any original contribution to ethical science. But his political theory, fragmentary though it is, contains elements of interest. For he develops in outline the theory of a social contract, very much after the manner of Locke. In discussing the circumstances which are requisite to the making of a just law Duns raises the question of the origin and legitimacy of political authority. Now authority is of two kinds, paternal and political. The former is natural, the latter established by convention ; it may be invested in a single person, or in the whole community of citizens, but in either case the legitimate sanction is derived from the consent of the governed. Political authority is the creation of a voluntary association of persons not bound together by ties of kinship. Such men having no common superior, and finding that they were unable to live together peaceably, met together, and by mutual consent surrendered their rights and powers either to a single person for life, or to his heirs for ever, or to the general body of the community. Thus was constituted the civil power which wielded a legitimate authority, for it is permissible for a man to surrender his rights to another, except in such matters as pertain to the divine law. This pact probably was contracted,

Duns tells us, after the flood.* We have here clearly formulated in their essential elements, the two doctrines which were to play a prominent part in the political theory of the XVIth and XVIIth centuries, the theory of the social contract and the sovereignty of the people. But Duns introduces them merely as a consideration incidental to some question of moral theology and never troubles to develop them further. Neither of them was wholly unknown to medieval thought, for both had been adumbrated by Manegold of Lautenbach in the 11th century, but nowhere else till the time of Marsiglio of Padua do we find so clear an enunciation of two such fundamental principles of modern political theory.

VIII.

In this brief sketch I have endeavoured to portray in their main outlines the most significant features of Scotus' teaching, and to bring into relief, as it were, those points on which his doctrine differed from that of the best-known master of medieval scholasticism. Difficult and over subtle as his writings undoubtedly are a closer study of them will amply repay anyone who is interested in the history of European thought. For it is in Scotus more than in any other thinker of the middle ages that the diverse tendencies of medieval thought are gathered up, and even if he failed to achieve a perfect synthesis of these conflicting elements he yet succeeded in laying the foundations of a system which more than any other expresses what is most characteristic of the middle ages. The Thomist Aristotelianism was always to a large extent a foreign growth, drawing its life blood from Arabian rather than from Christian sources, but it is from the Platonic rather than from the Aristotelian tradition that Christianity has drawn its truest inspiration.

* See Op. Ox. IV, Dist. xv, q. 2; Rep. Par. IV, Dist. xv, q. 4.

*Meeting of the Aristotelian Society at 21, Gower Street, London,
W.C., on May 18th, 1925, at 8 P.M.'*

XIV.—THE NATURE OF IDEAS.

By J. LAIRD.

My only excuse for asking your attention to-night to this most threadbare of themes, is that I am interested in the subject, and believe it to be both important and still unsettled. Neither common speech, nor the theory of knowledge, could, or should make any effort to refrain from speaking of ideas; and when they speak of them I assume that they mean something.

In ordinary speech, and in many philosophies, the mind is said to *have* ideas, and these ideas are said to be *of* something or other. Thus I have an idea of a house, or of a virtue, or of a quadratic equation. Indeed there does not seem to be anything contemplable of which it is impossible to have an idea. This being so, ideas, it would seem, should not be very hard to trace. For certainly they are very common, both good ones and bad ones. Perhaps, indeed, we have only to attend to what we *have* when we think *of* anything. And yet the affair is elusive. The notion of *having*, as here employed, is not at all simple, for it raises some of the hardest problems which concern mental sub-

stantiality and function. "*Of*," again, perhaps because it is such a tiny particle, is a very deceptive quarry. According to Sir Walter's *Peveril*, the Duke of Buckingham's name was commemorated, not only in Buckingham Street, Duke Street or Villiers Street, but also in "*Of Alley*." This is quaint; but such quaintness may sometimes be philosophy's proper business; and I would ask you to assume with me that our own particular "*Of Alley*" may be worth exploring.

I shall begin, however, with a consideration of the sense in which we say that we *have* an idea. Private possession means in law, I suppose, the admitted right to exclusively personal use, and I am ready to concede that we do "possess" our own ideas in a sense approximating to this. I cannot see, however, that this concession helps us appreciably when we try to understand what we mean by this cognitive possession of ideas. What is our ownership in this matter? Whatever we may be, we are certainly more than merely cognizing entities, but in so far as we attend to our cognitive functions we cannot (can we?) discern any appreciable distinction between having an idea and being cognizant; and certainly there would be *no* difference if we interpreted "ideas" in Locke's sense or in Berkeley's. Therefore, the good bishop asserted roundly that to "have an idea" was "all one as to perceive"—although he also said other things. (In a narrower sense of "ideas" there may be a difference, as I shall show presently.)

It would appear, then (at any rate if we assume with Locke or Ward that ideas are entities to which we may attend) that the sense in which we *have* an idea is, quite simply, the sense in which we *are-aware-of* an idea; and when this is said, it seems unnecessary, for the purposes of this analysis, to pay any further attention to the "we" who possess or even to our possession. The use of the personal pronoun, to be sure, lays emphasis upon what appears to be a highly important and indeed a most significant fact—the

fact, namely, that "floating" processes of awareness do not seem to occur, so that any actual piece of awareness is either a part of, or dependent on, that which we call a self or ego. On the other hand, this truth, if it be one, need not concern us now; for it appears to be evident that if a process of awareness did occur as a lonely wandering event it might still be awareness of something. Indeed, if it were not, it would not be awareness at all. Proceeding along these lines, therefore, we seem to reach as the irreducible minimum of our analysis a "process of awareness of an idea."

In American phrase, therefore, we appear to have "located" a certain "*Of Alley*," but this is not the original "*Of Alley*" that was mentioned, and for most philosophers (although not for Berkeley) this *other* "*Of Alley*" is far more important and perhaps even more perplexing. Ideas may be "objects," and capable of attracting our attention, but they are not in general *the* objects of which we suppose ourselves to think. We think, we say, of mountains, not of our ideas of mountains; of horses, not of our ideas of horses. In other words, our awareness of ideas does not end the business, for these ideas are of something which is not in general ideal. The horse that I think of may be put between the shafts, and trot along the plain. This, we say, ideas can never do. It does not merely *sound* fantastical to say with Berkeley that we are fed and clothed by ideas. It *is* absurd.

If we ask why it is absurd, we see that common sense, in this instance at least, has an answer pat and pertinent. Despite Locke and Berkeley, common sense never admits that coloured "objects" or sapid ones are "ideas" at all. On the contrary, it supposes (with or without justification or even consistency) that our sense-data are, literally and bodily, features of "things," so that "things" themselves confront us in sense-presentation. Common sense speaks of ideas, not when the relation is presentative, but when it is representative. On this view, then, ideas

are *only* representatives. We are aware of them *only* when we do not have direct presentative acquaintance. And then (1) we are aware of them and (2) are aware of them as being representative of that which they do represent, viz., things which at some other time or place might be perceived by us but, in our particular place at some particular time, cannot be perceived but only represented imaginally, conceptually, or in some other such fashion.

This view, as I have stated it, refers to the relation between "sensible things"—or (shall we say?) things in so far as they are sensible—and *their* representative ideas. For consistency's sake, however, a similar distinction ought to be drawn wherever there may be direct or literal cognizance (*i.e.*, inspection). Thus, if there were direct inspection, say, of "mental activity," we should have to distinguish this from any ideas whereby we might represent activity. As I hope to show, this point is fundamental and may be very far-reaching; and I do not think that common sense or ordinary language has made any serious attempt to explore it thoroughly. In one instance, I think, common sense distinguishes very readily; for it distinguishes between our ideas of the ego and those psychical facts with which we may be directly acquainted in introspection. I propose, however, to waive these questions for the time being, and in the immediate sequel to consider only the relation of "sensible things" to *their* ideas.

In opposition to the common-sense position it is asserted on various grounds that the objects of direct sense-acquaintance *must*, after all, be ideas, and not things. These grounds (in so far as it is admitted that these "objects" really are objects of awareness, not part of the process of being aware) seem to be chiefly the following:—(1) It is held that these "objects" cannot be things because, if they were, some of them would be erroneous (as one at least of the double images must be when I press my eyeball with my finger); and although ideas may be

erroneous, things can never be. (2) These objects vary with the subject and are momentary, whereas things are not concerned with accommodating themselves to the alterations in percipients and, furthermore, are accustomed to endure. (3) There must always remain some difference between sensible things and what we directly perceive. When I look at St. Paul's, for example, I see a part only of its exterior. The real St. Paul's is a complete structure; and, besides, it is accessible to other senses than the sense of vision. (4) These "objects" must at least be partly ideal because they are suffused with "meaning," being cues for interpretation as much as facts of inspection (as anyone may verify for himself when he says that he hears a cart in the street or remembers the "complication" whereby ice looks cold and cushions soft).

These objections, however, seem insufficient. The first cannot prove that the objects of immediate sense-acquaintance are *never* literally identical with some feature or phase of a "thing." The second and third prove that the entities we sense are at the best only selections from a thing's totality but cannot show that they may not literally be selections. It is only the fourth, therefore, which, on the face of it, plainly testifies to a certain veracity in the ideal theory; and this testimony seems equivocal. Granting that the facts are truly what here they are alleged to be, the manifest implication seems to be that what we call presentative facts, in developed sense-perception, are not entirely or nakedly presentative, but are also in a measure representative of further facts of the same kind. The focussed portions of a visual field, for example, signify a wider horizon—and something beyond the horizon. If we believe this we should say that common sense exaggerates a real distinction. Sense-data are principally presentative although partially representative; and if, in the sense of this distinction, we set ourselves to look for ideas proper, we should certainly consider, not that which

is principally non-representative but, on the contrary, entities, if there are such, which are exclusively, or at least principally representative.

Our first question accordingly is : What *are* these representatives ?

A very usual answer is that the representatives, in this instance, are always images. This, indeed, was the way in which Hume corrected Locke's " loose " employment of the word *idea* ; and most philosophers, I suppose, would admit that there *are* images and that such images *may* represent sensible things. This admission, however, is a very slender support for the further assertion made by Hume, certain other philosophers and psychologists, together with a good many dictionaries and cross-word puzzles, that images are the only possible representatives in this affair. To suppose so is to suppose, in the end, that only one species of cognitive representation is possible, namely, the species of copying. Images really are copies. The image of the colour blue, for example, is itself blue and a colour. The fact of resemblance, however, does not of itself constitute representation (for if it did two sensible blues would be mutually representative and each would straightway become ideal). What is needed is the further fact that the copy *indicates* its original, and this function of indication is not at all restricted to entities which are like the things they indicate. On the contrary dissimilar entities (as words or other symbols) may readily have this function.

I may be pardoned, perhaps, for dwelling a little longer upon this matter because it still arouses discussion—and some confusion. Writers still debate, for example, whether or not imageless apprehension may occur. If it may, and if the apprehension is representative, it follows, of course, that there are other representatives than images. On the other hand, if it does not occur, very little is proved ; for granting that something in the way of imagery is always connected with the process of representative

apprehension, it has still to be shown that these scraps of imagery (for frequently they are the merest scraps) are the only representatives in the occurrence and that they really do signify and mean all that we are thinking of. And this, so far from being proved, has been shown in detail to be hopelessly improbable. If this detail were essential I would go into the psychological question, but the view which is refuted in these minute investigations is itself so extremely improbable (except perhaps for the few whose power of imaging is altogether abnormally pronounced) that I do not find any occasion here for a nicer scrutiny.

Instead, and for fuller measure, I would point to certain notorious circumstances. When we consider a train of "ideas" that is very highly imaginal we are at once aware that it may be even more logical than imaginal. This occurs whenever the process that Stout calls "relative suggestion" or Spearman "the eduction of correlates" occurs. The imaging, in other words, takes place according to scale, adapting itself to logic like a Lesbian rule. It is sinuous and in proportion. This notable circumstance, in the very citadel of our opponents' territory, suggests, even there, a certain logical hegemony; and we should not be surprised at this result for the simple reason that ideal representatives, according to the majority of theories and according to the manifest implications of the language we use concerning them, are, for the most part at least, very thoroughly notional. As we have seen, every cognitive representative (and therefore every idea according to this analysis) must at least *indicate* that which we mean by it—that *of* which it is the representative; but this indication, in its turn, may be either significant (or connotative) or else non-significant (or non-connotative). Most of us, I think, would assert that *all* our ideas are significant—that is to say that we take them to be so when we use them—but even if some are not, it is obvious, from very general testimony, that most of them are.

Now, if we ask what notions are, it is plain that we take them to be predicates or adjectives (at any rate if, following Mr. Johnson, we are entitled to treat relations as "secondary adjectives"), and so I may be reminded that, according to a certain celebrated type of opinion, adjectives may be treated as images, on the ground that they are loosened or cut off from their fundamental (but intellectually unsatisfying) home in sensuous apprehension and allowed to float and wander. This language seems pretty certainly to be borrowed (although only in part, no doubt) from the behaviour of images. For images do wander and float and may be said to be loosened from an original bodily consentience of sensory experience. Nevertheless, and to be brief, it is quite impossible that images and predicates should be the same. For the proof, it is enough to point to a palpable *ignoratio elenchi* in Berkeley's contentions concerning abstract ideas. Berkeley, we may say, proved that abstract ideas cannot be imaged but not that they cannot be conceived. A triangle-image must have a relatively definite shape (even if we grant that imagery may be much vaguer and more elusive than any possible perception) and this image, if it is worth calling an image, must be either oblique, right or acute-angled and cannot be all three together. The predicate "triangular," however, connotes all three varieties of specification; and it does so all at once.

From these considerations a conclusion seems to emerge. We are dealing at present with a particular set of ideas, those, namely, which are of sensible things, and in this case we are assuming that things in so far as they are sensed are not ideated, although an ideal element may also be blended, always or usually, with our "sense-data." On these assumptions we should look for ideas of this kind in the case in which something is before the mind and indicates sensible things which, at that time, are not themselves before the mind. Of these representatives there are many sorts. There are, for example, words and other symbols as well as images

and notions. It is clear, however, that these other representatives are never supposed to be ideas. No one would say, as I suppose, that a word or set of words was his idea of a horse, unless he had entirely succumbed to some virus which he calls a theory. We should say, however, both that images and that notions are ideas, for we suppose that signs are significant as well as indicative when they are either intellectually connotative or contemplated in "picture thinking." Unless our assumptions are challenged, therefore, we should conclude, I think, in this special case (which is also highly important) that images and notions *are* what we mean by ideas.

What, then, of the general as opposed to this special case? Here the field is wide and a minute survey quite impossible in a shortish paper. I hope to be pardoned, therefore, if I confine myself to certain broad indications of the direction which an analysis, similar to the foregoing but more general, would take. In the first place, then, we should distinguish carefully between what may come directly before the mind and what in any given case does not come before it but is represented by an idea. Thus, if memory may be direct inspection there is, so far, no room for ideas in it; but if it is never direct inspection, then anything remembered must be cognized through an intermediary: and this intermediary, in our view, would be an idea if it were either a resembling representative (or image) or a significant notion. And similarly in all other doubtful cases such as, let us say, introspection. If we may be directly acquainted with our own mental states, as common opinion (although violently assailed) has been wont to maintain, then ideas of these states would differ from the direct introspection of them, but would occur when introspection does not occur and we have in its place either some representative echo or semblance analogous to an image or again a set of notions and predicates. (If psychical facts are other than sensory ones, being uncoloured, unspatial and so forth, they

could not, of course, be *imaged*, since an image as usually understood, is a copy and likeness of perceptible colour, sound and the rest. I should suppose, however, that the faint twinge of shame, say, which I feel now when I try to represent to myself a former condition of acutely felt disgrace, is analogous to an image, while, if the process is intellectual, I merely think about it and represent the condition by notions.)

In the second place we should have to note that even representatives may themselves in their turn be represented. It would be possible, I suppose, to have an image of an image. If the ship of reality can be imaged so can the ship of a dream. And patently it is possible to have a notion of a notion.

In all these discussions, however, it is assumed that ideas are intermediaries, and this, it may be said, is at least contentious and, at the worst, opposed to what the most sinewy thinkers have taken for truth. Thought does not screen us off from things but shuts us in with them; for it penetrates them and commingles with them. Even images, in so far as they are picture-thinking have, in their starved but stubborn fashion, the same function. What we call an image is really a thing imaged, and what we call a notion is a thing as it is thought--a thought-selection which is really and truly a character of things and not an intermediary at all. A true judgment, in its own intellectual way, is just as definitely a true selection as a veridical perception; and if perception is ever veridical, the theory of error, in its case, must be essentially similar to the theory of error in judgment.

I have the fullest sympathy with this objection, because I do not believe in the correspondence theory of truth; but it should not affect the foregoing analysis. An image of a thing, let us concede, is a thing imaged, an imaginal selection from it; a notion of a thing is a thing noëted, the intellect's selection from it; and "things," let us grant, always *are* that which, error apart, thought or perception or imagination selects in them. They

are that at least and possibly more. But what would you have ? If you are content with a thing imaged, good and well. There is then no question of intermediaries or of representation. If, however, you are not content with a merely imaged selection but lust for, let us say, a perceptual one, then your image does not content you ; and if it is all you can get at any given time, then, at that time, it is a mere representative and poor intermediary. And so with intellectual selections. These must be general, since all characters and qualities are. Neither concrete particularity (as opposed to the demonstrable uniqueness of a connotative singular term) nor the particular type of acquaintance which we call sensuous fullness can ever be achieved by notions. Therefore, if this is what you want, and a general notion is all you have, this notion, in comparison with your purposes and desires, is *only* an intermediary, and a mere idea. Ideas can do a great deal and they may even have stronger hands and feet than anything else ; but they cannot do everything. Being *only* ideas they *are* representatives.

The objection, then, is unavailing, but it may help us in at least two respects. In the first place, it may faintly illuminate our second "*Of Alley.*" When we ask how precisely an idea is *of* a thing we may say that it is a notional or imaginal selection *from* that very thing. This may not explain very much, but it seems to indicate the rudiments of an answer to the highly pertinent question which demands our warrant for believing that some given idea points to some one thing and not to some other. In the second place, it may help to explain the word "content" (sometimes used in this connexion) and perhaps even the word "vehicle." I confess I do not myself see what the content of an idea is unless it is either the idea itself, or its elements, or its qualities, but if the contention is that the idea is a "mental content," this is in harmony with the above analysis in the sense that the idea is contained in the object and held, by the mind,

before its attention precisely so long as certain species of cognitive selection are possible. "Vehicles," to be sure, being metaphorically so, are even more elusive. Ideas convey indications and are vehicles in that sense, but probably what is meant is rather that ideas are not so much the objects of attention as the objects of mere awareness directing our attention to that which they signify. This may or may not be true. When we try, through imagery, to direct our attention to something which is not a mere image, we are usually very neglectful of the guide. We are not interested in him for his own sake but only as an instrument for something else in which we are interested. This, perhaps, is why the scientific study of imagery is, relatively speaking, so very modern. On the other hand, it is a common complaint against the ideas which we call notions that we attend to them far too much. We arrange and deploy them into great intellectual systems and structures, even when our ostensible aim is the "colligation" and "interpretation" of sensible fact. On the other hand, when we use representatives for a representative purpose, they may be said to be "vehicles," even when we attend to them very hard, and I have just been arguing that ideas always are representatives. Indeed, we might state these strictures upon abstract intellectual structures quite naturally by saying that the builders of these systems, while they really operate with ideas, forget that the ideas actually are ideas which, just because they are ideas, are *only* representatives of the facts which are the goal of the study.

I have dwelt at this length upon this type of interpretation because I believe it to be possible and because it agrees, upon the whole, with what I personally take myself to mean. If ideas are *objects* and also of some other object, I think they should be regarded in this way, and I am content to accept both of these initial assumptions. It is plain, however, that many philosophers would dissent at least from the first assumption. Ideas in their

opinion (although they do not always say so explicitly) are not objects at all. On the contrary, they are mental processes (or something contained in and a part of mental processes). They are psychical matter of fact having a certain objective reference and significance, and from this standpoint the whole of the foregoing analysis mingles with the Upper Air.

By an "object" in this sense we mean anything which is before the mind, confronting it, and open to, or perhaps soliciting, mental inspection. Such "objects" *appear*, at least, to be very common. The green patches which we call sense data, the greenish images, and a host of similar entities *seem* to confront us in this fashion, and if there is not *really* any confronting or inspection in these instances a very manifest deliverance of stubborn experience has surely to be abandoned. This relinquishment, however, is precisely what this counter-analysis decrees. It conceals its harshness, to be sure, in two ways; for, firstly, it allows itself to speak as if mental processes which acquired (or possessed *ab initio*) objective reference became "objectified" into "objects," and, secondly, it permits itself to suppose that any puzzling features in this metamorphosis may be resolved (without remainder and without intolerable difficulty) into the miraculous dexterity of awareness itself. Both explanations, however, are to the last degree, forced and oppressive. To have or to acquire objective reference—that is to say, to *stand for* an object—is one thing. To *be* an object, and confront us as such, is quite another thing; and even our consciousness may not be persistently capable of the feat of turning itself inside out and confronting itself "as an object." I do not see why we should not attend to our minds, but I have the greatest difficulty in supposing that this conjurer's transformation is what we *mean* by our attention to them—or that it occurs.

In accordance with this counter-analysis, however, the proper conclusion seems to be that objects never do confront us at all.

Nothing comes bodily before our minds, neither minds nor matter, neither sense data nor images. What happens, on the contrary, is that our mental experience signifies objectivity, that it stands for truth and reality. There is no occasion, according to this alternative (although there was plentiful occasion according to the former) for distinguishing sharply or finally between presentative and representative cognition. The experiences which we call sensing, imaging and conceiving, to be sure, are different experiences and they develop characteristically on their own proper lines. In the root of the analysis, however, they are all ideas in the same sense. They are psychical fact having or acquiring objective significance (or rather, perhaps, having it and therefore refining upon it). In this sense realism and idealism *are* sharply opposed, although in many other senses they are not, and the extent of the opposition may be measured perhaps by the palpable crossing of purposes in many of the arguments on this question. The realist, interpreting his opponent's doctrine from his own angle, tries to force the idealist to say that objectively significant assertions are psychical objects and so that, being *his* sensations, they are therefore *his* psychical objects. Here the lapses of certain opponents may certainly supply him with somewhat destructive ammunition, but in essence there is no fight. Subjective idealism ought properly to mean the subjective significance of ideas, objective idealism their objective significance, and the investigation of these differences belongs to a different plane of argument.

Since I believe that things (and ideas too) literally do confront us, I have to take the realistic side,* but since my object in this discussion is rather to explore possibilities in the way of analysis

* There are, of course, many other senses of "realism," but one is enough at a time.

than to be downright contentious, I shall endeavour to indicate certain of the arguments which might be adduced in favour of the counter-analysis when the problem is regarded in terms of this contrast. As I have already suggested, there cannot be many who would have the effrontery to deny that much that appears to us *seems* to confront us as an object of inspection, clearly and straightforwardly before our minds. There is really no denying this, as is plain from the irrelevance of many attempted denials. Sense data, it is said, are momentary and fluctuating, mediated by a chain of physical bodily and neural events and the like. This may shake our confidence in the belief that they are what they appear to be but can never show that they do not appear to confront us, and since all our arguments concerning nerves and stimuli and the rest depend upon sense experience as their essential foundation it seems plain that the direct interpretation of those affairs is in many ways predominant over the indirect. What may be relevantly objected, however, is that this analysis is obsessed by the apparent implications of the sense of vision. Visible facts, quite certainly, seem to confront us, and visible images too, but is there the same sort of confronting in any of the other senses, or in any other imaging, or in the process of conceiving? Most philosophers would deny that there is. In sound and smell we impute a source outside our bodies to the noises or to the odours that we experience, but this may be readily taken to be the attributing of a significance beyond our bodies to an affection of our bodies. In touch there is contact with bodies but the significance, for the most part, is derived from the movements of the fingers and other organs of touch together with the pressure upon them. Heat and cold, similarly (as referred, say, to the wind), seem to be a reference from an experienced bodily condition. So of the senses, therefore; and imagery, if it be truly such, may be regarded as a fainter bodily reverberation, more vaguely localized within the body, but still of the same

order. I need not pursue the argument. Memory and conception are generally supposed to be in our heads if they are anywhere, and if either of them is nowhere, it is popularly supposed (although wrongly, I think) that it cannot truly confront us.

It is logically possible, to be sure, that vision should be different from all the other senses in this crucial business and confront us with objects while the other varieties of cognition do not. This, however, is not probable; it does not tally with our normal interpretations of the world; and it is undermined by physiological and by psychological optics which explain how much we are beholden to movements of ocular adjustment (and the like) in all our seeing. We must suppose, therefore, that the analysis in all these matters is fundamentally the same for every sense. Accordingly, the counter-analysis, despite its apparent untruth in the case of vision, seems at least as likely to be true as the other; and this, I think, would be so were it not for a definite oversight in the argument stated above. The contention, as I see it, is that the world outside our bodies is for the most part merely signified by conditions experienced within our bodies, much as the taste of a pear, let us say, may be said to be the taste within our palates when these encounter the juices of the pear. *Sensa*, in other words, are directly organic *sensa* which signify something extra-organic. But suppose we concede this. Have we then any right to say that *organic* *sensa* do not confront us? Many of them, as it seems to me, clearly do so. They seem to have a definite locality in some part of our bodies just as manifestly as they have a definite quality, and anyone who declares that we do not distinguish our bodies from ourselves seems to me to be saying the thing that is not. We may be wrong when we do so, but we do.

I suggest, in fact, that organic *sensa* confront us within our bodies, that tangible *sensa* confront us at the surface of our bodies, and visible ones at a distance from our bodies. Similarly I

suggest that remembered events, whether of our own former experiences or of events which formerly confronted us, confront us at a distance in time, and that notions, or predicates or rational essences, when inspected in their generality, confront us at no time, and at no place, but still that they do confront us. The defence of this opinion would be a long and an intricate undertaking, and in its full range this opinion is not very usual or (apparently) attractive. I believe it however to be defensible and to come nearest to what I mean. If I did not, I should prefer to follow the idealists' analysis, and regard all the facts with which we have to do in this matter as essentially and quite simply a mere reference and symbolism of the life-process within us raised to a certain level. Notions, sensa, memories and dreams, on this view, are nothing but modalities of our living, the achievement of a significant mode of psychological being. This significance, however, never inspects. Instead, it yearns vainly for incorporation. In other words (to repeat a gibe which seems to me very pertinent) it confuses knowing with swallowing.

I pass in conclusion to an observation which seems to be necessary for its own sake as well as a defence against a possible further objection. It is plausible to urge that the analysis of this paper is tainted from the first: and so, in the natural course of events, that it becomes vicious and diseased in the result. Its apparent candour, I may be told, conceals a very monster of prejudice and preconception; for, beneath it, all the spectres of old-fashioned mind and of old-fangled matter gibber and sway: and these are as mischievous in their decay as ever they were in their prime. Among the wise, it may be said, matter has ceased to be truculent and mind has abated its arrogance. They are prepared to live in amity or even to commingle: to be bi-polar, not disparate; or perhaps the same things in different sets of relations. What we need, then, is something simpler than

matter or mind or the toothless dotards which remain to mock them. We need "pure experience" or "neutral monism" or M. Bergson's "*images*," or the "essences" of the critical realists. These are the true ultimates, and if they are not ideas they are the stuff of which ideas are made. According to Mr. Santayana in one of his charming *Soliloquies in England* "The word Idea ought to mean any theme which attention has lighted up, any aesthetic or logical essence, so long as it is observed in itself or used to describe some ulterior existence."* And English philosophers have sadly abused it. "Ideas (for Englishmen) are not intrinsically facts but suppositions: they are descriptions, offering themselves officiously as testimonials for facts whose character remains problematical, since, if there were no such facts, the Ideas would still be the same."† Thereupon he contrasts Platonic Ideas with Hume's, and he concludes "Perhaps if, on a third occasion, the Ideas visited a less burdened and preoccupied soul they might be welcomed for their fair aspect and for the messages they convey from things, without being, in their own persons, either deified or materialised."‡

With this, I think we should not quarrel. I have dealt indeed, *inter alia*, with the relation of certain ideas to sensible things; but this, as we saw, was only a part of the general problem. Ideas may signify mind, or matter, or that which is neither; but I have not tried, I think, to thrust an officious testimony upon them. My problem, in fact, has not been the relation of "mind" to "matter," or even the relation of "mind" to that which is "non-mental." It has been the relation of cognitive process (wherever found and of whatsoever kind) to certain of its objects.

* p. 229.

† p. 233.

‡ p. 235.

I have concluded, it is true, that a theme "observed in itself" is not, properly speaking, an idea. On the other hand, a theme lit up by attention and used to describe some ulterior entity is precisely what I have meant by "idea," and we need not seek for a better definition. My difference from Mr. Santayana, therefore, is ultimately a difference in the analysis of facts which we both understand in precisely the same sense. For me, a theme lighted up by attention is a double, not a single entity. On the one hand, there is the object of the attention; on the other hand, the attention to it. In other words, the theme is just what it is, and it may or may not *appear*. When it *appears* there is *awareness* of it and this is a further fact which is *not* a part of the theme but something that happens to the theme. Hence there is at least one "*Of Alley*" for there are two facts in connexion, and the analysis cannot be simplified further. It is tempting, no doubt, to suppose that these ideas may be *also* and in their own right self-revelatory, not simply themes but self-luminous themes, not entities only but visibilities too. Tempting but false, for the themes need not appear, and hosts of the finest of them, let us hope, have not yet appeared but remain to be lighted up by the genial attention of some future discoverer.

Mr. Santayana would reply, I suppose, that the attention is not *given as* mental, nor the theme *given as* testimony. The latter at least I should doubt, and there seems to be a certain dubiety in Mr. Santayana's own statements since the third of the passages I have cited speaks of the "messages" which these essences "convey." I have no space, however, in which to pursue the point, and it seems irrelevant to my purpose. A theme, at any time, is *given as* what at that time we take it to be; and plainly, without any mistake on our part, it may, nevertheless, *really be* much that we do not discern in it. There is no contradiction, for that matter, in saying (if we had to say it) not merely that themes have a home, but also that processes of awareness

are part of some mind, or, if you choose, effluxions from the rational essence of egoity. That is what they might really be, although reflexion, not strenuous naïveté, might be necessary to the showing of it. And so of a host of other possibilities. When that which is *given* is given but in part, the rest may need unlimited searching ; and yet the thing which is given in part really is given although the subtleties of its existence may not at the time be understood.



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W.C., on June 8th, 1925, at 8 p.m.*

**XV.—SYMPOSIUM: THE SUBJECT-OBJECT RELATION
IN THE HISTORICAL JUDGMENT.**

By A. H. HANNAY, H. WILDON CARR, and T. P. NUNN.

I.

By A. H. HANNAY.

THE controversy between realism and idealism has tended to centre round the physical object and to pass over the living or conscious object, the human person. Not only that, but also the consciousness of the physical-sensation or object is usually taken at its lowest, reflex level. The philosopher just opens his eyes and becomes aware of a colour, making the least possible effort in doing so. All the reactions which are necessary to constitute his awareness at the moment have been repeated by him and his ancestors myriads of times over, so that there is the minimum of originaive effort and of discovery in the act and the maximum of automatism. Accordingly it seems to him that he has only to open his eyes and to mirror the object. It has not always been so; the consciousness of a colour or of the complex of qualities which go to make up an object must originally have been something in the nature of a series of discoveries arrived at slowly, painfully and after many mistakes. We do not know in these cases exactly how the discoveries came about, we cannot

reconstruct their history. Nevertheless it is clear that to examine merely the last stage in the process is liable to give a very misleading idea as to the character of the process as a whole. It is better to take as an instance, for the purpose of the argument as to the subject-object relation, some actual process of discovery.

This bears indirectly on the problem which I propose to discuss here, that of the consciousness by one subject of another subject. For the position is similar to that in the problem of the physical object. We can take as our central instance the consciousness of another subject at practically the reflex level or at some more uncertain stage where the consciousness is in the making. For the reasons indicated I will endeavour to do the latter, and I think that a pre-eminent instance of this experimental stage is to be found in the work of the professional historian.

On the face of it the problem presents a different situation, both for the realist and the idealist, to that presented by the problem of the physical object. The fundamental point of dispute between realism and idealism is concerned with dead matter and dead qualities existing in independence of mind or consciousness. The realist seems prepared to accept without further question the existence of a universe made up of matter in some form or other and of qualities unconscious of themselves or of anything else. He does not of course deny the reality of life and of mind and he would give to them a place in his universe, but it is scarcely an organic place, otherwise matter would be linked up with mind and would not remain completely independent of it. The place given to consciousness in a realist universe resembles a corner in one of those provincial museums which are filled with a bewildering variety of unrelated oddments. The idealist, on the other hand, is unable to conceive a dead universe or dead qualities floating about in complete separation from mind or consciousness. This is putting the matter rather

crudely and broadly; but these seem to me to be the two divergent assumptions or attitudes underlying even the most carefully limited discussion about the subject-object relation in the case of physical objects. And the physical object is necessarily the centre of attraction in such a dispute because, as envisaged in the current semi-scientific view of things, it is a dead mechanical object. The living object or, in other words, the subject as object does not throw this particular problem into such strong relief. Being itself conscious, it cannot be said to have properties which are quite independent of consciousness. On the other hand, the idealist is very much more ready to admit that the subject which is an object for another subject has an independent existence of its own. In fact, he cannot very well help doing so, although if he is a subjective idealist he may be at some pains to explain away the apparent inconsistency in such an admission.

Indeed, at any rate from a superficial point of view, the conscious object constitutes a greater problem for the idealist than for the realist. It brings the idealist face to face with the question of the individual, subjective, empirical consciousness and the absolute consciousness. For the realist the conscious object can be classed immediately with the physical object, so far as the subject-object relation is concerned. It is held to be independent of the subject, which simply mirrors it in its own consciousness in just the same way as it mirrors the physical object. I think, however, that a closer inspection shows that the position is a little more complicated than that.

There are two kinds of object associated with the human or conscious being; there is his actual world of consciousness, of awareness, and there is also, at any rate for the historian, a whole network of relations and historical factors which are connected with him and in that sense dependent upon him, but of which he is not conscious. The historian deals with both kinds of

object, barely discriminating between the two ; but the distinction is philosophically of the greatest interest. The latter kind of object, that of which the person studied by the historian was not actually conscious, is apparently in the same position, from the point of view both of idealism and realism, as the physical object. Whether or not it be in some sense dependent upon the mind of the historian, it apparently has only one facet, that which is offered to the historian. The other kind of object has two facets ; it has an in-itselfness which is extraordinarily elusive and it has the relation of this in-itselfness to the historian. These are not one and the same thing, for while this in-itselfness, the subjective world of the personal consciousness, will admit of being grasped and understood and analysed by the historian, it will not admit of repetition. The very process of what is ordinarily considered to be repetition of a past state of consciousness is, in fact, a process of change. There is in it, even at the lowest level, the awareness of the fact of its being a repetition, which introduces throughout a wholly new element. A complete and absolute repetition would be devoid of this awareness ; it would, that is to say, be identical in every respect with the past state, which would no longer be past but present. Time would go back on itself or, rather, would never have gone forward. But this is not the kind of thing that the historian really aims at, nor is it even what we really want when we wish we could have an experience all over again. We want to recover the same circumstances and to "remember" the old experience, improving upon it. The other way, that of absolute repetition, there is not actually any second time.

The result of this is that, while the historian may aim at knowing a situation as it was and in that sense at identifying himself with a historical situation, he does not aim at completely identifying himself with the consciousness of a historical subject, with being that consciousness. He aims at knowing it and

understanding it, feeling and sympathizing with it, but all the time he remains himself and while his state of consciousness may be said to include the other (or part of it), there is also something added.

This process does not seem to me to fit in with either the realist or idealist theories as they are ordinarily stated. The realist maintains that in all knowing there are two factors, only one of which is dependent upon the other. There is the independent object and the subject which, *qua* consciousness of the object, is dependent upon it; but it neither alters nor adds to the object, which it simply mirrors. We have seen that the historian does not mirror the states of consciousness of the persons about whom he writes. It would be truer to say that he develops them. Equally the idealist statement requires correction. The object here is only partially dependent upon the subject. To take a contemporary instance. Queen Victoria had an existence of her own quite independent of Mr. Strachey and at a time when Mr. Strachey did not exist at all. She was a self-subsistent noumenal entity, an in-itselfness that was absolute. In attempting to obtain an understanding of her the historian is dealing with something that he did not make and that is in a way quite indifferent to his efforts. And yet Mr. Strachey's picture of Queen Victoria is peculiarly his own and not the less so in its truest and most convincing passages. Not only that, but posterity will say that it belongs peculiarly to Mr. Strachey's period; it is a part of the historical outlook of that period. It seems that although the historian deals with a subject matter which had an existence independent of him, in making it his subject matter, the object of his consciousness, he transforms it, recreates it, so that it becomes his world and in that sense dependent upon him. And it is here that the idealist takes up a very strong position. For the fact that each period has to write its own history of the past and that each historian contributes

something which can be said to be his own creation is not easily explained on a purely realistic basis.

This brings us back, of course, to the distinction between the two kinds of object, the actual consciousness of the persons about whom the history is written and the numerous factors relating to those persons which are dealt with in the history, but of which they were not themselves aware. It has been seen that the historian never recovers the former in its original state, but transforms it, importing into his evocation of the past an element of his own. This new element is, in fact, identical with the second kind of object, which therefore is itself the result of the relation between the first kind of object and the historian.

It will no doubt be maintained that this new element is simply a set of factors which have existed all the time just as the historian perceives them, although wrapt in unconsciousness. The historian, according to this explanation, is still not more than a mirror which is set at a different angle according to the circumstances and requirements of his time. The position is, in short, analogous to that of the private spaces from which the same table is viewed by different people and it follows that all the histories ever to be written are there ready made and warehoused in the ample store-rooms of the past, and all that the historian has to do is to find the keys.

Most people would be inclined to qualify this in some way or other, by allowing the historian a certain æsthetic freedom, a personal philosophical bias or an interest in viewing the past in the light of contemporary problems. All very vague statements which call for more precise and careful elaboration and I suspect that the elaboration, when completed, will still further modify the realistic view.

At the same time it should be admitted that this view has a great deal to be said for it. For it performs an important service in insisting on the universal character of historical truth

and in opposing shallow forms of æsthetic subjectivism. But it is doubtful whether the realistic view provides the only possible basis for the existence of ascertained and ascertainable facts, certainties and truths in history. Of course in so far as the concept of fact is itself tinged with a realistic interpretation any alteration of this interpretation alters equally the concept and we may come to regard "facts" as more pliable and penetrated with theory and relativity than we commonly do at present. But the concept of "fact" will only become more complex; it will not be abolished.

Broadly speaking, apart from pure subjectivism, there are two alternative philosophical views. There is the absolute idealism of the English school, of Green, Bosanquet and Bradley, which is closely allied with theism, and there is what has been called the neo-idealist school which has carried to its logical conclusion the Hegelian conception of development or becoming. Of course there are all sorts of different shades of theory and no rigid classification can be made, but a fairly sharp line can be drawn between those who posit an absolute mind, transcending the human mind and sustaining the world of objects and those who allow to the human mind an independent creative power of thought. In the philosophy of transcendence human thought has no very definite function, for it is wholly subsidiary to and dependent upon the transcendent and eternal mind, whose thoughts it simply duplicates. From this aspect, therefore, human thought is almost a superfluity. On the other hand, if it is not regarded as a mere duplication, it must either lapse into the position assigned to it by realism, of mirroring an object which exists independently of any thought, or it must be allowed some measure of creative power.

One of the distinctive features of what is called neo-idealism is that it concedes to human thought a measure of freedom of this kind, although, of course, it only does so on what one might

describe as a lofty metaphysical plane. It raises human thought to the level of the thinking of the absolute mind and it defines this thinking not as a complete state of perfection, but as a continual process of self-creation. This process is history and the individual historian is therefore both an observer of and a moment of the process itself.

I am aware that the question, what is the exact character of the creative act of the individual historian, might be dismissed as being of an empirical nature and not meriting serious philosophical consideration. It is enough, it may be argued, to know that the whole is creative and to single out any empirical part and to ask what measure of creative power it possesses is to travesty the theory or to invite travesties of it. I am not satisfied with such a reply any more than I am satisfied with the indignant denial which is invariably evoked by the inquiry whether neo-idealism means that the human being creates his boots or the sun when he thinks about them. Admitted that the neo-idealists do not for a moment mean anything so absurd; nevertheless I do think that some further and more detailed explanation is required as to what exactly—and more hostile critics would say, what on earth—they do mean. It is not enough to assert that the whole situation is creative and that it is futile to suggest that any empirical fragment of it (*e.g.*, the human brain or body located in space) creates the other empirical fragments. To confine the discussion to the particular question dealt with in this paper, if the absolute mind is conceived as a historical process, it must presumably contain a distinction between a past and a present and it is surely a valid and legitimate question to ask what is the relation between the present and the past.

It may be regarded as a wrong proceeding to isolate a single moment of a process, but once this isolation is effected at any rate in idea, it naturally follows that the single moment is not

creative of the whole process of the past, although it may be said to imply or contain within it the whole past. Thus the individual historian may sum up in himself the past and in that sense recreate it and he may be said to create his knowledge of the past, but he does not, *qua* empirical individual, create the past itself. And we have seen that his knowledge of the past does not strictly repeat the past, that is to say, the actual consciousness of the past individual. Rather it develops that consciousness and, if this development is not the mere discovery of something that was always there, the point to be decided is, in what sense can it be said to be creative of something new ?

The term creative is perhaps unfortunate. It implies at the same time too much and too little. It implies an arbitrary power to do anything we please and does not convey a sense of the weight and compulsion of reasoning and demonstration. Explication is really a more appropriate term. For I would suggest that the work of the historian consists in the pulling out of a latent possibility or implication which could not become an explicit actuality before the historian came along with his own individual outlook at his particular period. He links the past up with the present and while the links are of his own forging there is yet a rational necessity in their form and construction.

II.

By H. WILDON CARR.

MR. HANNAY has opened this symposium with a very clear exposition of the new-idealist argument in its opposition to the realist theory. I take no exception to his account. He finds, however, that the new-idealist, though skilfully avoiding the pitfall of the realist is confronted with a peculiar difficulty of his own, one to which he must not be allowed to shut his eyes. This difficulty is: Granted that reality is activity and process, that mind is pure act, that history is creative, that the past exists in the present, that the present is making itself, yet the present is not making the past, the past as past and not present claims to exist, or at least to have once existed, on its own account. The past has *de jure* and *de facto* an indefeasible claim to be regarded as in-itself with no dependence whatever on any interpretation which it may receive from the historian in the present. There existed a Queen Victoria whom neither Mr. Strachey nor any historian present or future can ever create, notwithstanding that it is only by the historian's creation that we or anyone can know Queen Victoria at all. Let the new-idealist tell us then what on earth he means when he declares that all reality is history and that all history is present creation.

I have not the slightest objection to be labelled a new-idealist and to respond to the challenge by giving my own answer, though whether it is the answer which all who, whether they like it or not, are labelled new-idealists would agree to give, I cannot say. I will speak first of all only for myself.

I conceive the reality of the world as monadic, and consequently whatever presents itself to me as entitled to be considered real in-itself, independent of my activity in perceiving it, is

conceived by me as a monad with its own self-centred, self-directed, activity, and with its own outlook on its own world. The monad's world exists only for the monad and there is no world independent of the monads. I find no logical or epistemological difficulty in conceding existence to other reals than myself, and in attributing to them the individuality and exclusiveness which I claim for myself. It is impossible that I should know the perceptions of another monad as they exist for the monad, but the more successful I am in installing myself ideally in another monad's world, the more my own world expands, the richer becomes my experience and the deeper my sympathy grows. This is essentially what true history does. The historian's success is measured by the degree in which he is able to enter sympathetically into the lives of the actors of the period he deals with and interpret the events of that period to his own generation. This, too, is why history cannot be a faithful record of what once was actual, fixing for ever the form of what was.

So far probably Mr. Hannay is in full agreement with me, but at this point he confronts me with a difficulty. The past was once present and had then the same reality which the present has now. The past not only is what it was, but also it was what it was, just as the present is what it is. The historian must respect this existent past, he does not create it, he cannot mould or shape it, he must not distort it. Interpretation of fact may change its appearance but fact itself is inviolable. My reply to this is that we have to distinguish between two totally different meanings of the word *fact*. We call facts certain definite events which we believe to have taken place at definite dates: Cæsar crossed the Rubicon; Harold the Saxon King was slain in the battle of Hastings in 1066; Queen Victoria reigned over England during the greater portion of the nineteenth century. On the other hand we may mean by fact, Cæsar and King Harold and Queen Victoria, as they were in themselves, with their private worlds

and enjoyed experience and self-directed actions, in other words, monads. In the first case the facts belong to the present in the clear, unambiguous, meaning that they enter into and form part of our actual co-ordinated space-time world. They are part of our world, yours and mine, in precisely the same meaning in which the discovery of the Dinosaur fossils in the Gobi desert has made the fact that the Dinosaur lived at a definite period in the geological history of the earth a part of our world, while the Dinosaur itself, its feelings and perceptions when it lived belonged to its world exclusively and form no part of ours. The fact that its world is past in relation to me and my world does not destroy the existence of that world. The space-time of my world has no point of contact and no point-to-point correspondence with the space-time of the Dinosaur's world when I concede to that ancient creature its monadic reality. Space is the order of co-existences, time the order of successions, for me in my world, for you in your world, and our two worlds may be so nearly on a plane as to appear to us identical, but space and time belong to the private world of each monad, not to a world common to all monads, independent and absolute.

So far my theory is pure metaphysics, let me now try and show the relation of the metaphysical theory to theory of knowledge and its general importance for philosophy. Many philosophers and most men of science have sought to dissociate theory of knowledge from metaphysics and have set before themselves the ideal of a pure method of description free from any dependence on metaphysical explanation. It is in my view an unattainable ideal, and would be useless were it attainable, alike in philosophy and in science. If we discuss the nature of existence at all we are discussing metaphysics, protest as we may. I leave, then, Mr. Hannay's appeal to the new-idealist to say what on earth he means, in the hope that I have stated sufficiently clearly what I mean, and I turn to the subject of the

symposium itself—the subject-object relation in the historical judgment.

In history the new idealism sees the nature of knowledge revealed. The historical judgment depends entirely on records and yet records are not history. Lists of the Kings of Judah and Israel, chronicles of notable military or political achievements, even eye-witnesses' accounts of what they directly observed, are not history, and historical knowledge is not constituted by collecting them and piecing them together on any principle of arrangement whatever. As well might we suppose that a transcription of the tombstones in a churchyard would yield a history of the parish. The object of the historian is to represent the living reality as it was lived. He is dependent on records for the means of recovering this reality ; by criticizing these records he may more or less successfully fix the event recorded in its absolute delineaments ; yet all this work is only subsidiary. The reality itself which the historian will represent is inaccessible to him. It is monadic. The historian can only interpret that reality in the present for the present and there is no finality in his interpretation. Let me put the case by making a somewhat extravagant supposition. Let me suppose that someone could collect together all the sense-data or sensibilia (which the new-realists tell us are non-mental or possibly neutral existents) actually experienced by the living actors of an historical event, would he then be possessed of the material for the complete history of the period ? Would this material represent historical truth in any meaning whatever of the word history ? If not why not ? The simple answer surely is that it would be utterly unintelligible. What we want to know in history is the play of motives, the clash of actions, the reverberation of ideals, it is these alone which make the past intelligible, and these never existed in the meaning of the existence of sense-data. This means not only that the historian brings the present to the

interpretation of the past, it means that the only past he can know is present and that his work is creative. The object of knowledge in the historical judgment is not separated from the subject knowing by a time interval which makes the object itself non-existent and represented only by a record. The event is now existent though past, and the reason I cannot know it as it was but only as it is, is not because it has ceased to exist but because the real actors are monads. For me therefore the historical judgment is not a form of knowledge which calls for some special theory to bring the knowing act into contact with non-existent fact, it reveals to me the nature of all fact and of all knowledge of fact.

The new-idealism offers us an entirely different approach to the problem of knowledge to that which has become habitual with those who have been brought up to philosophize along the lines of Locke and Newton. The philosopher's ordinary approach is to point to the handiest material object in his environment, his chair, his pen, or the paper on the desk before him. Here, he says, is an object independent of any act of mine in knowing or willing, also it presents no indication of self-activity on its part, in this inert material object I have before me for my contemplation the simplest case of independent in-itself existence. At once psychology comes to remind him that the object is a manifold of sense, so he sets to work to analyse the object into sense-data, afterwards he seeks to discover, if he can, an objective principle of relatedness for his sense-data. Then physics comes to disturb him with the reflection that the very objectivity of his object is dependent on the real existence of electrons in atomic systems which can only be conceived as themselves devoid of and indifferent to the sense qualities of his object. Lastly, to complete the absurdity, when the philosopher turns from the "contemplation" of these seemingly simple and strangely elusive things to consider what he might know at once is really

real, viz., his own mind and other minds, he finds that in their nature they cannot be contemplated, and in order to give them a status at all as objects in the real world he must suppose some higher grades of being, angels or gods, who contemplate minds as we contemplate objects.

The new-idealism starts with mind and meets no difficulty with regard to chairs and tables and pens and sheets of paper nor yet with sense-data, nor with electrons. It sees that to abstract these objects from their relation to the subject is to empty them of meaning, that to separate them and establish them as things-in-themselves is to reify abstractions which when put together are as unsubstantial as a house of cards. It would be just the same with the mind if the idealist abstracted it from its world. The monad is not one thing and its world another, The perceptions of the mind are inseparable from its activity in perceiving. The world of each monad is the field of its action, co-ordinated by and for each monad from its own private acting centre. It is a solidary relation like that of mind and body. When I die, if death means extinction, my world disappears with me *ohne Spur*. There is indeed a sense in which the monad does not come into or go out of existence, whether the monad in question be the ancient Dinosaur or the modern living man. This is the sense in which the monad as a real is an essential constituent of the monadic universe. There is the universe of the monads whose existence we conceive as absolute, but the universe of a monad's perceptions cannot exist without the monad.

I may seem in this symposium to have brought in my own theory of monads without justification from the subject set for us. If I appear to have been riding my own hobby horse, my excuse is that I have been spurred on to do so by Mr. Hannay's challenge, and have tried to answer for my own part what I as an idealist mean by the reality which is the subject-matter of historical judgments.

III.

By T. P. NUNN.

The extremely lucid papers which I have the honour of following have strongly confirmed my impression that, as regards some of the major problems of philosophy, the domestic differences among those who call themselves idealists are much more serious than any that separate idealism as a whole from realism. The truth of this view appears very clearly in the candid passage where Mr. Hannay contrasts the absolute idealism of Green, Bosanquet and Bradley with the neo-idealism of Croce, Gentile and Professor Carr. According to the former doctrine the universe is a single coherent experience of which the experiences of private minds are fragments or fragmentary duplications. This relation of private minds to the whole doubtless makes their privacy (as Mr. Bradley argued) illusory and may (as Mr. Hannay somewhat unkindly suggests) make their existence superfluous; but at any rate it makes their knowledge of the world knowledge in what is substantially the sense a realist attaches to the word. By that I mean that, for absolute idealism as for realism, the world is independent of the cognitive activity of any private mind, so that its features are neither created nor changed by being known by such a mind. Again for both types of philosophy there is no limit to the knowledge attainable either by inspection or by inference by a given private mind and no reason in principle why it should not embrace the whole of reality. Indeed we already know so much of some aspects of the world that, as I think Mr. Russell has said, it almost needed the discovery of such a puzzle as the existence of "quanta" to show that the fear that we might have reached omniscience was premature! The congruence between the opinions of an absolute idealist and a

realist may extend even to their views about the nature of private minds. For just as Mr. Bosanquet maintained that a private mind is "a world of experience" displaying more or less coherence in its parts, so I, innocent of conscious plagiarism, once argued from the realist standpoint that "what is commonly called the 'mind' of an individual is essentially a mass of objects (distinguished either by the cognitive or by the affective coefficient) organized into conative systems which exhibit at one time various degrees of synthesis"*; while Professor E. B. Holt, also an intransigent realist, has declared, more succinctly, that a mind is only a particular "cross-section" of the common world.†

In writing thus about absolute idealists and realists I do not wish to minimize the fundamental differences between their points of view; my purpose is only to show that in the treatment of certain problems, including the nature of history, the differences are compatible with a considerable amount of unanimity. The area of that unanimity is substantially extended when a couple of doctrines, usually regarded as specially characteristic of the antithetical types of philosophy, are subjected to a reasonable discount. I refer on the one hand to the idealist doctrine of degrees of truth and on the other to the infallibility that realists are thought to claim for direct knowledge. According to the former, actual knowledge must always be "infected with error" because it is necessarily incomplete; the only really true knowledge would be knowledge that included all that is. The discount I would apply to this doctrine is the remark that it does not prevent the idealist from believing that, as a matter of fact, we possess a good deal of sound knowledge about the world. And with regard to the realist's doctrine that direct knowledge is infallible I would observe that it amounts to no more than the absolute idealist's admission that his "appearances" are,

* Proceedings of this Society for 1907-8, p. 152.

† *The Concept of Consciousness*, 1914, p. 183.

after all, a part of "reality." It does not preclude the realist from recognizing that perceptual and higher forms of knowledge all contain a constructive or "creative" element which renders them liable to error. In short, upon the question of the validity of knowledge, the supposed opposition between the views of absolute idealists and realists resolves itself mainly into a difference of emphasis upon factors whose presence both admit.

It follows that there is no difference in principle between the ways in which absolute idealism and realism must approach the problem of history. There may be wide divergences of opinion about the proper solution of that problem—divergences interestingly brought out in Mr. Collingwood's recent paper on the subject*—but they do not divide realists as such from absolute idealists as such. For both parties agree that history consists of some sort of construction by private minds based upon some sort of data which are constituents of a common or "absolute" world; and agree further that though the constructions reached by different private minds are in fact often widely divergent there is, in principle, no reason why they should not be identical in content.

The opposition, with respect to the problem of history, between these philosophies and new idealism, particularly the monadology of Professor Carr, is, on the other hand, about as wide as opposition could be. To begin with, since the whole range of reality that constitutes the monad's world lies within a momentary pulse of its pure activity, history, even from the standpoint of a single monad, becomes something extremely "Pickwickian." For if I understand the idea aright history is simply a part or an aspect of the structure of the pulse of activity and can be nothing else whatever because nothing else exists. Now although, from the standpoint of the other philosophies, history may be, and perhaps must be regarded as a construction, and

* P. 151 of this volume.

as such falls within the present moment of intellectual activity, it is what I have elsewhere called a secondary construction: that is one based upon features of reality which have their own independent existence and structure. In a word, history is a way of looking at things not of making them. I can think of only one way in which the history of the new-idealists can be made to look like what we others call history. The momentary pulse of spiritual activity which perpetually creates the world is essentially historical in character in so far as its structure necessarily contains a past developing into a present and pointing on to a future. If then we imagined an indefinite expansion of this "specious present" we should have history as it is understood by the unenlightened. I cannot help suspecting that the plausibility of the new-idealist doctrine of history depends partly upon the fact that history, as an attempt to picture and understand the past, is a construction which must occur *now*, and partly upon the suggestion that since the present moment of experience is always historical in character there is no reason why all history, in the sense of events that have happened, should not be thought of as falling, ideally, within its compass. The new-idealist, mingling the fact and the suggestion with delicate art, produces something which he thinks every reasonable man ought to be able to accept as the truth about history.

But even if his procedure were convincing there remains, between him and the rest of us, a huge gulf which it is impossible to bridge. For us, while histories are constructions of private minds and may therefore differ widely, they are all based upon and intended to be renderings of an objective history which is part of a common world. But the monadologist maintains that there is no common world; every monad has (or rather is) its own world, and the world of each is utterly inaccessible to all the rest and has nothing in common with their worlds.*

* "Between one mind and another there is absolutely nothing in common, neither space nor time, neither object nor event." (Wildon Carr, *A Theory of Monads*, 1922, p. 19.)

How, if other monads are wholly inaccessible to me, I can know that their worlds have nothing in common with mine, how indeed I can know that they exist, is a mystery I will not attempt to explore*; it is sufficient to remark that such a view makes history, in any ordinary sense, impossible. For, as Professor Carr admits in his present paper, history is concerned not merely with things in the order of nature but also and very largely with things in the order of mind—that is with the worlds of other monads than oneself. If those worlds were really inaccessible it could not exist. Accordingly we find that Professor Carr, after declaring that the worlds of other monads are entirely closed to him, nevertheless claims that he can instal himself in them ideally; and that though their contents have nothing in common with those of his own world he can nevertheless take them into his own world and so enrich his experience and deepen his sympathy. I do not for a moment deny that he can do these things; my difficulty is to see how he can do them and still maintain his theory. In brief, my view is that just as the doctrine of degrees of truth presses to an extravagant length in theory the obvious fact that knowledge of a part can as a rule be only partial knowledge, so Professor Carr's theory (but not his practice) enlarges the indisputable fact that I cannot know all that goes on in another man's head until it becomes the illegitimate doctrine that I can know nothing thereof. In face of the actual existence and character of science, history and literature, neither the former doctrine nor the latter

* Professor Carr appeals to the doctrine of relativity in support of his view, but it has always seemed to me that he misinterprets the bearing of that doctrine. Einstein's relativity concerns the differences in the order of nature which belong intrinsically to different standpoints in that order; and his cardinal principle is that the "worlds" correlated with different standpoints have under their superficial discrepancies a fundamental congruence—that is, have the point-to-point correspondence which Professor Carr denies.

can, I submit, be maintained without very important qualifications.

I may be expected in conclusion to state the attitude of a realist towards the problem of history independently of the question how far it resembles or differs from the attitude of idealists. I can do so very briefly by saying that it is just the attitude of the working historian, who takes it for granted that he is concerned with facts which are in no way dependent for their existence or character upon his researches but (if hitherto unknown) merely await discovery, and are absolute in the sense that they are the same for all or are constituents of a single common world. To say this is not to preclude a realist from accepting the view that the events which make up the world are susceptible of alternative time-stratifications, though as a matter of fact this character of the world has no practical importance for the study of history in the ordinary sense of the term. It is more important to say that a realist has as much liberty as any one else to make his choice among the several competing views upon the proper aims and methods of history. By that I mean that although realism holds that the passage of events has its own independent character, a given person's vision of all but the simplest elements invariably contains something selective, analytico-synthetic, constructive- in a word that knowledge, whether perceptual or indirect, is one of the higher expressions of a creative faculty which is the distinctive essence of life. From the realist standpoint, then, history need by no means be regarded as an attempt to photograph the invisible past by other rays than those which illuminate the present. It is an attempt to understand the past by assembling past facts and making them intelligible by means of forms derived from other contexts of experience. Facts and forms alike belong to the common world ; the constructive or creative work consists in bringing them together.

I will make only one more remark which has reference to one of Mr. Hannay's. I think he is right in saying that for the realist a conscious object (i.e., a mind) can be classed with physical objects so far as the subject-object relation is concerned. That is certainly true of a realist who holds, as I do, that a mind is only an individual, private arrangement of public materials—sensa, feelings, "forms" and so on. I am not sure whether it would be true of Professor Alexander in view of the "enjoyment" which, in his theory, cannot be "contemplated." But though physical objects and minds may in principle be classed together as objects it does not follow that they are accessible to knowledge in the same way. I cannot know by direct inspection the vast moving synthesis of objects, cognitional and affectional, which makes up the mind of my neighbour nor the conative (or as I should prefer to say, *hormic**) trends that permeate it; I can know these things only in part and by often precarious inference. Moreover the knowledge I can have of the synthesis must almost always be of the kind Mr. Russell calls knowledge by description. With further reference to what Mr. Hannay has said I add that while this is certainly true in fact I am not sure that it is true in principle. I think it just possible that a person of exceptionally lively imagination and subtle intuition might "instal himself ideally" in another's mind so successfully as actually to reproduce in himself a substantial part of his model's experience, cognitional and affectional. In that case* he might be said to have direct knowledge of at least part of the model's mind. But that knowledge would be history only if he believed that his experience was a repetition of the model's and had evidence to support his belief.

* Meaning by the use of this term to refer to the fact that mental movements at the conscious level are affected by and integrated with movements at deeper levels of the organism.

*Meeting of the Aristotelian Society at 21, Gower Street, W.C.1, on
June 29th, 1925, at 8 p.m.*

XVI.—SOME AMBIGUITIES IN THE RETRIBUTIVE THEORY OF PUNISHMENT.

By W. H. MOBERLY.

I.—“HISTORY shows us a time in which it was thought not only as natural but as clearly right and incumbent on a man to requite injuries as to repay benefits; but as moral reflection developed in Europe, this notion was repudiated . . . In its universal form the old conviction still lingers in the popular view of Criminal Justice. It is still widely held that justice requires pain to be inflicted on a man who has done wrong, even if no benefit result either to himself or to others from the pain. Personally, I am so far from holding this view that I have a strong instinctive aversion from it: and I hesitate to attribute it to Common Sense, since I think it is gradually passing away from the moral consciousness of educated persons in most advanced communities.”*

The first thought of nearly everyone who sits down “in a cool hour” to reflect on the moral character of punishment must be that Sidgwick is right. Whatever the ultimate motive of the punisher, his immediate aim is to make things unpleasant for the criminal. But the believer in retributive punishment seems to make this not only the immediate aim of punishment, but also its whole *raison d’être*. “Punishment,” he asserts, “is for the sake of punishment,” or “Punishment is an end in itself.” “Judicial punishment,” says Kant, “must at all times be inflicted on the criminal for no other reason than because he has acted criminally.”† But to any punishment, as to any war, humane

* Sidgwick, *The Method of Ethics* (6th Edition), p. 281.

† *Philosophy of Law*, E.T., p. 195.

and sensible men, whose resentful impulses are under control and who are unhampered by the need of justifying a theological dogma believed on authority, will insist on applying the test of "little Peterkin" in the poem—"But what good came of it at last?" Hence the retributive theory is apt to seem, not so much a rational justification of punishment as the refusal to reason about the matter at all. It seems to be a wilful substitution of passion for reason as a guide of conduct; and of a kind of passion which, in the form of private revenge, civilized society has agreed to condemn. "The suffering of any sentient being," we say to ourselves, "is an evil. Of that we are surer to-day than ever before. *Prima facie*, therefore, any deliberate infliction of suffering is wrong. It can be justified, if at all, only as an investment likely to minimize suffering in the long run. To hurt for the sake of hurting is wanton cruelty." Yet this is precisely what, in the case of the wrongdoer, the retributive theory seems to enjoin on us as our duty. How, on such lines, is it possible to meet the familiar objection of Bentham? The crime is an evil, admitted. If it were still unconsummated, ruthless energy in repression might be called for. But—*ex hypothesi*—the deed is done, and its innocent victims have suffered. If, now, to the suffering of the victims there is added the fresh suffering of the perpetrator, the total situation is worsened, not bettered: there are now two evils instead of one. If, indeed, you have good reason to hope that the suffering inflicted on the criminal will serve as a warning to others or as a lesson to himself, you may possibly be justified in punishing. But the advocate of retribution for its own sake seems to disclaim all such defences.

II.—The first thought, then, of the student is, to dismiss the retributive theory as a relic of barbarism, as being only an unconvincing rationalization of rather ugly impulses. But he is likely soon to discover that it is a good deal more cogent than at

first appears. Not only has it behind it an imposing weight of authority, but, he will soon realize, its logic is not easy to evade. Its real strength lies in this—that the preventive and reformatory theories of punishment, in any sense in which they are respectable, presuppose its retributive character.

The advocates of punishment for the sake of prevention of crime or the reform of the criminal have given too little attention to the question, "In what way does the criminal law, with its punishments threatened and actual, produce either of these desirable results?" The easiest answer, of course, is—by the appeal to self-interest. Crime is proved to be "an ill-bargain for the offender"; and so he and his possible imitators are deterred from further anti-social experiments. But though this is certainly part of the truth, it is not, in civilized society at least, the whole truth. It is only the whole truth when those who make and administer the law possess no moral authority in the eyes of those they rule, like a German military tribunal in Belgium or an English military tribunal in Ireland four or five years ago. But though a Hobbes may explain all government on these lines, it is quite clear to the normal observer that there is something over and above this in the influence of criminal law, wherever government is respected and has some basis in popular assent; and that it is just in this overplus that the moral quality of that influence consists. Otherwise punishment administered by a lawful government would act not otherwise than punishment administered by a tyrant or a foreign invader.

In fact criminal law works not only through intimidation, it is also educational. It is so under favourable circumstances, even to the criminal himself, and still more so to that considerable section of the population which hovers uneasily on the verge of crime, but is not definitely criminal. The public branding of a certain class of act as punishable, followed up, when occasion demands, by the actual infliction of punishment, does convey

some moral lesson to the general public. So much is obvious. But the question remains, what kind of a lesson is it that is taught? Is it merely that such and such acts are *dangerous*, or is it that they are *wrong*? If it is merely the first, it is absurd to talk of reformation, and the influence of punishment on third parties will be confined to intimidation. But if it is the second, how is the lesson to be conveyed? Any punishment which is to be reformatory must somehow stimulate in the criminal a process of reflection leading up to a recognition of the true nature and moral quality of his deed. Unless the tribunal which decrees the punishment has some moral prestige in his eyes, the punishment can hardly have this effect. But if it has such prestige, he may begin to ask himself—"Why do people whom I respect treat me in this way? What have I done to provoke it?" And the answer must be, not merely "I have made a nuisance of myself," but "I have done wrong." The criminal must say to himself, not merely, "What a fool I've been," but "What a beast I've been! Serves me right." "And we indeed justly. For we have received the due reward of our deeds." No genuine reform can be effected by punishment except in so far as the criminal recognizes not only that people do react in this unpleasant way against crime, but that decent people do so just because they are decent people and "can no other."

But this is to admit the old contention of supporters of the retributive theory, that, for the moralist, the primary question about any punishment is, "Is it just?"; i.e., "Is it deserved?" The educative effect of punishment is seen to depend on the recognition of its justice. Its justice cannot then simply consist in its possible educative effect. If I do wrong and am punished for it, I can only receive moral benefit from the punishment if I recognize it as being, in itself, and prior to any reaction of my mind upon it, the due reward of my deed. Either, then, the whole moral effect of punishment rests on a sham and will not survive

exposure; or we must admit that the common sense of mankind is not at fault, and that there is some intrinsic fitness in the sequence of penalty on wrongdoing. This may, indeed, be disputed by a disciple of Hobbes to whom punishment is only a useful weapon in the struggle for existence as waged in the world of *Realpolitik*, or by the small but growing number of persons who denounce all punishment as immoral. But it cannot consistently be disputed by anyone who justifies punishment for the sake of reformation; for he cannot himself dispense with judgments of the type of "Serves me right."

III.—So far the advocate of retributive punishment has the best of the argument. But the moment we attempt to analyse the judgment "Serves me right" or "Serves him right," we find ourselves in difficulties which have been too little explored. It is the object of this paper, in which for reasons of space I must confine myself to criticism, to point out some of these difficulties.

The doctrine before us teaches that the proper basis of punishment, as of reward, is desert. The meaning of "ill-desert" is forcibly expounded in Butler's "Dissertation."* "The sight of a man in misery raises our compassion towards him; and, if this misery be inflicted on him by another, our indignation against the author of it. But when we are informed that the sufferer is a villain, and is punished only for his treachery or cruelty, our compassion exceedingly lessens, and in many instances our indignation wholly subsides. Now what produces this effect is the conception of that in the sufferer which we call ill-desert. Upon considering, then, or viewing together, our notion of vice and that of misery, there results a third, that of ill-desert. And thus there is in human creatures an association of the two ideas, natural and moral evil, wickedness and punishment. If this

* *The Analogy* (Everyman Edition), p. 266.

association were merely artificial or accidental, it were nothing : but being most unquestionably natural, it greatly concerns us to attend to it, instead of endeavouring to explain it away."

It is, then, just and fitting—Butler maintains—that moral beings should experience happiness or misery in proportion to the moral quality of their voluntary actions. In general, the good deserve happiness and the bad misery. In so far as, within the ranks of the sheep and the goats respectively, there are differences in the degree of merit or demerit, the degree of happiness or misery deserved is correspondingly graded. That every individual should, in the long run, receive his exact deserts is the ideal which the moral consciousness approves. It is the duty of persons in authority, who have the happiness or misery of others, to some extent, in their power, to pursue this ideal so far as human limitations allow. Only if judges and magistrates make their decisions in this spirit can we speak, except in irony, of "the administration of justice."

Kant speaks of the judgment which connects virtue and happiness in this way as "a synthetic judgment *a priori*."* By calling it *synthetic*, he makes explicit what is implicit in Butler, and shows that the correspondence between virtue and happiness here contemplated is a correspondence between two different things which are quite thinkable apart : though by calling it *a priori* he indicates that no order of things in which such correspondence was not ultimately effected could be a moral order.

"Desert," then, signifies a relation between two separate things, such that the second ought to be adjusted to the first. The relation between conduct and enjoyment is conceived on the analogy of the relation between work and payment. Happiness and misery, in their various degrees, are conceived as the wages of conduct, which though never its proper motive, are none the

* *Critique of Practical Reason* (*Werke*, Vol. V., p. 119 (Ed. Hartenstein)).

less earned and due. The difficulties which are usually raised in regard to this conception have mostly to do with the first term of the relation—the earning, and these, no doubt, have the greater intrinsic importance. But here I am more concerned with difficulties concerning the second term—the payment.

If “desert,” as understood by Butler and Kant, is to be admitted as an ultimate truth, two conditions must be realized. Happiness and misery must be so related to virtue and vice respectively that an exact concomitant variation between them is conceivable; and it must also be conceivable that the happiness or misery of one being should be so far in the power of another that the other can confer or withhold them at will. But here is a great difficulty. For these conditions seem only realizable at those levels of valuation at which men find their happiness or misery in the possession or lack of “external goods”; and at the higher levels they seem progressively less applicable. At one end of the scale we have the savage warrior, who finds his Valhalla in the opportunity for continuous hunting and fighting and feasting. The kind of treasure he values can be apportioned to the kind of merit he recognizes—to every man a damsel or two, to Sisera a coat of many-coloured embroidery, etc. Between Sisera and his followers, or between Achilles and his fellow-chiefs, it is possible to divide the spoil in some rough proportion to rank and prowess. But those imperishable goods on which men, at a higher stage of development, set their hearts do not, in their very nature, admit of being partitioned in this fashion. “*Beatitudo non est virtutis præmium sed ipsa virtus.*” Between “virtue” and “beatitudo” there is no such relation of manipulated correspondence as the conception of “desert” seems to imply. So, again, it may well be true that wickedness, deep-seated and continuous, involves the disintegration and unrest of the whole mind of the wicked man; but his wickedness and his misery are not two things, of which the second is deliberately made to corre-

spond to the first. They may not, perhaps, be barely identical, but they are not conceivable apart: the judgment which unites them is "analytic" rather than "synthetic." "The wages of sin is death"; but the more adequately either sin or death are conceived, the less applicable are such metaphors as "wages" or "penalty" to the relation between them.

Can we then, with Butler, conceive reward and punishment as being permanent features of the moral government of the universe? For, as we grow in moral insight, we seem to find our happiness or unhappiness in such things as can neither be conferred nor withheld; while those things which can be conferred or withheld, such as cakes and ale on the one hand, or "stone walls" and "iron bars" on the other, become less and less important. We are bound, then to ask ourselves whether the apparent importance of reward and punishment in the scheme of things is not bound up with rather primitive ideas of value. In so far as reward and punishment are viewed as *motives* of action, everyone now admits this: Paley no longer has any admirers. But is not even the view that they are the just and proper sequel of action otherwise motivated bound similarly to disappear? *Ex specie aternitatis* will not the presence or absence of those external goods which alone can be conferred or withheld seem as trivial as do the prizes and forfeits of his childhood to a grown man?

IV.—To this objection there are two possible answers.

(1) It may be said that neither Butler nor Kant nor anyone else supposes that any human tribunal can approach much nearer to perfect justice than does a child's daub to an actual sunset. For perfect justice we can only appeal to

"those pure eyes
And perfect witness of all-judging Jove."

To pronounce an absolutely just verdict requires infinite knowledge

and to execute the sentence of absolute justice requires infinite power.

“ To wisest moralists ’tis but given
To work rough border-law of heaven
In this our life.”

But that does not prove that the conception of “ desert ” is, in principle, impossible or meaningless.

But this is to misunderstand the difficulty. It is not a question of finer instruments of measurement and discrimination ; nor is the difficulty only the *de facto* absence of power and insight. If one thing is to be adjusted to another, the presupposition is that, while such adjustment is being effected, they are two and not one. Once they have really fused, the notion of precise adjustment has not so much become an ideal difficult to attain in practice, but rather has lost all its meaning.

It is true that the notion of “ desert ” has a strong appeal to the plain man. But it most naturally arises at the level of thought at which the two terms related seem obviously distinct. Goodness and badness belong to one order, happiness and misery to quite another. Therefore it seems plausible to relate the second pair to the first as payment to work. But with the growing refinement of our moral ideas, our conceptions of happiness and misery are transformed. Everyone would admit this ; but the consequence is not sufficiently observed. It is not merely a matter of substituting one currency for another : it is any possible currency that is transcended. It is generally those very thinkers who lay store by “ desert ” who are the most scornful of the Benthamite conception of “ lots ” of happiness, which can be distributed, like flannel petticoats or parcels of grocery, to the deserving poor. Yet are they not themselves in the same condemnation ? If we really abandon the notion of “ lots ” of happiness or unhappiness, how much remains of the notion of “ desert ” as above defined ?

(2) The doctrine that desert is the basis of punishment may be re-affirmed in an altogether profounder way. It may be said: "Of course the doctrine of desert, *as you describe it*, belongs only to a stage of valuation which is outgrown. But that is because you have failed to disentangle it from its eighteenth century setting. Even Butler and Kant are too much affected by the limitations of their age to be accepted as the classic exponents of the doctrine. Certainly its interpretation as being only a demand for an adjusted or imposed equivalence between two intrinsically different things cannot survive criticism. But that is only an attempt to express, in a characteristically artificial, eighteenth-century form, a truth which lies much deeper. The notion of an objectively just wage with all its difficulties is an attempt to reproduce, in the clumsy medium of exchange, the idea of rational continuity between work and its fruits.

So Hegel tells us* that the notion of equality between crime and punishment is only the attempted translation into crude external categories of the truth of an "inner identity" between action and its consequences. Every choice, right or wrong, is in some degree a Rubicon-crossing: it has abiding consequences. If it were not so, life would lose its meaning. "Things are what they are, and the consequences of them will be what they will be." This is less clear so long as our values are confused; for the material damage done by crime to other people may be contingent and remediable. But one consequence, at least, is inescapable; and that is the moral damage to the wrongdoer himself. So, in the *Theaetetus*, Socrates informs Theodorus that the true penalty of injustice is not stripes and death, as the wicked mistakenly suppose. These are poor deterrents, for it is well-known that evildoers often escape them; whereas the true penalty is inescapable. "There are two patterns set before them;

* *Philosophy of Right*, E. T., p. 94.

the one blessed and divine, the other godless and wretched ; but they do not see them or perceive that, in their utter folly, they are growing like the one and unlike the other by reason of their evil deeds ; and the penalty is that they lead a life answering to the pattern they are growing like." (176, E.)

Here then is the underlying reality of which external pains and penalties are only a type. From this they derive what significance they have ; and even if they are outgrown, it will remain. When retribution is conceived in this way, the old objection that it is an additional and superfluous evil ceases to be relevant. For here is nothing arbitrary or artificial, nothing which conceivably could be foregone. If wrong choice were not, in this sense, disastrous, right choice would lose its meaning."

Retribution, so understood, rests on two principles. (a) In an intelligible universe, nothing can happen which is not a ground for further happenings, whose character is influenced by its character. (b) In a moral universe, every moral decision is a peculiarly significant event. Its inherent consequences are of a specially weighty and permanent kind. It has, ordinarily, some consequences which are not strictly inevitable, in the way of injury to the happiness or corruption to the character of others. But the moral damage to the doer of an evil deed is inevitable. Here the retribution of all voluntary acts is seen simply in their tendency to foster, in the agent, the dispositions appropriate to them. In this sense, wickedness leads to the hell of the irrevocable. "Sow an act and reap a habit ; sow a habit and reap a character ; sow a character and reap a destiny."

Here it may be claimed that the conception of retribution is spiritualized. When purged of all that is arbitrary or conventional, the retribution is conceived as being of the same order as the deed. But at once further difficulties suggest themselves.

(1) If we use the foregoing arguments to establish the rightfulness of retributive punishment, are we not guilty of an

ignoratio elenchi? Automatic retribution is one thing: retributive punishment is another. Punishment, in any sense of the word in which its ethics can be discussed, must itself be a voluntary act—i.e., it is an event that may not happen and that will not happen unless someone in authority makes a particular decision. *Ex hypothesi*, there is a question; to punish or not to punish? Even if it be a fact that wrongdoing automatically produces evil consequences in the soul of the wrongdoer, that can only be a basis for a theory of punishment, if it is assumed that this natural process is a pattern which Society, in its treatment of offenders, should endeavour to imitate.

(2) But, once it is understood that the retribution of wicked conduct consists, not in suffering—an evil of another order—but in the formation of a wicked disposition—an evil of the same order—it ceases to be plausible to maintain that it can ever be right deliberately to inflict it. It is true that punishment is always the infliction of an evil of some sort. But so long as that evil is understood in terms of material loss or of suffering, it is at least arguable that its infliction may be right. For it may be that there are goods of an altogether higher order than “comfort, content, delight”; with which these things or their opposites are not worthy to be compared. There is no obvious self-contradiction in maintaining that it may, on occasion, be a man’s duty to aim at making himself or others miserable. There is such a self-contradiction in the thesis that it may ever be a man’s duty intentionally to make anyone a worse man than he is already. “It can never,” says Socrates, “be the part of a just man to hurt another man in such a way as to lower him in the scale of human excellence.”* Deliberately to “hurt and assault the soul” is an aim which has only to be avowed in order to be condemned.

My argument comes to this. Punishment is the infliction of an evil. It is, *prima facie*, a paradox to say that it can ever be right

* *Plato Republic*, 335, E.

to inflict an evil. The real justification of the paradox, in the eyes of high-minded persons who believe in the duty of punishment, is the implication that the evil inflicted is only an evil of a secondary order, and that suffering matters comparatively little where there are spiritual conquests to be made. But, once retribution is understood to be an evil of the first order, its infliction can never be a rightful end of action. Such retribution may be automatic and inevitable. But to take it for a standard of conduct is as much a product of muddled thinking as it would be to mistake diagnosis for treatment.

(3) In the view before us it is implied not merely that there is in fact continuity in the moral life, which shows itself in the abiding consequences of moral choice, but that there is a moral value in this continuity; and that, in this respect, the sequels of good and evil deeds are on a par, for each equally exemplifies the moral order. Just as Aristotle argues against Socrates that you cannot acquit evildoers of demerit without at the same time robbing the virtuous of their merit, so, here, it is implied that the occurrence of good and evil consequences of moral choice, provided they are appropriate, is equally to be applauded. But this is contrary to what we all recognize in practice. To be strengthened in virtue or to be hardened in vice are the natural results of good and evil willing respectively. But, in the former case, a man's friends or those in authority over him, if they are people of good will, most gladly let things take their course. In the other, so far as lies in their power, they will intervene to neutralize the natural growth of the evil as the doctor intervenes to check the natural growth of disease. It is true that, in either case, a man's fate is equally the orderly and logical result of his past choices. What he becomes, is the result of what he himself has done. In that sense, his condition, whether good or evil, is equally just: he is the architect of his own fate. But, for those who can still influence him, this consideration is not final. If he can still be saved,

not necessarily from suffering, but from wickedness, he ought to be saved however little he may deserve it. It is one thing to assert that order has some moral value ; it is another to hold that it has the supreme and overmastering moral value, to which all others must give way. There seems, then, to be a sharp difference in the right attitude towards the processes initiated by good and evil deeds respectively. In the one case, we ought to approve their issuing in their logical culmination, and, so far as in us lies, to make that easy. In the other, we should aim, not at natural development, but at reversal.

V.—Here it is pertinent to remember that one school of thinkers which upholds retributive punishment bases itself upon this very principle of reversal. Hegel and Hegelian writers on punishment abound in such terms as “cancelling,” “annihilation,” “negation.” Hegel’s own description of it as “the negation of a negation” is familiar. So Dr. Bosanquet states that the object of punishment is to ensure that the criminal act does not become a precedent. He says the only way to prevent a crime’s becoming a precedent is to “annul the fact or act.” “This principle of annulment,” he continues, “is the ground and nature of punishment.”*

In this paper I have not space properly to discuss the rationale of punishment here suggested. My main object is simply to point out that it is entirely different, and indeed contrary, to the defence of retribution as being the “abiding consequence” of wrongdoing. It is one thing to argue that wrongdoing is so serious that it should and must have abiding consequences congruous with itself. It is a very different thing to argue that it is so serious as to demand instant counteraction and negation. Yet the rightfulness of retributive punishment is maintained on

* *Some Suggestions in Ethics*, pp. 189, 190.

both these principles ; and I find in its advocates no adequate recognition of the profound difference and—*prima facie* at least—antagonism between them. It is here that the fundamental incoherence of the retributive philosophy becomes manifest ; and my main purpose in this paper is simply to draw attention to it. It will be at least surprising if two such different principles as those of rational continuity and reversal are found to lead in practice to the same type of reaction.

But if, with Bosanquet, we take the principle of annulment as our guide, further questions will arise which I can only indicate here.

(1) Once a deed is done, in what sense, if in any, is its undoing conceivable ? The desire to undo those actions which we most regret is, indeed, deeply ingrained in the human mind. Many of the phenomena of religion are traceable to it. But, in the eyes of the realist, the conception of the undoing of the past is mere fantasy, as intrinsically absurd as it is pathetic. It rests on a refusal to face disagreeable facts ; and it is not only foolish, but harmful. For, so far as the quest for this impossible ideal is allowed to shape men's action, they are deflected from a treatment of criminals which is truly rational and humane. This view is brilliantly expressed by Mr. Bernard Shaw,* who finds the real foundation of criminal law in "human superstition."

(2) Even if there is some sense in which the undoing of the past is a possible ideal, it does not follow that such undoing can possibly be effected by punishment. It is, to say the least, not obvious that punishment and atonement are identical ; it is questionable whether they are even compatible. Moreover, it is arguable that the conception of punishment as annulment gains its plausibility entirely from a confusion of different orders of value, similar to that which I have already noted in a different

* "Preface to *English Prisons under Local Government*, by S. and B. Webb," p. liii.

context. If we confine our attention to particular manifestations of the evil will in action, the external damage may be repaired, the power of the evildoer to act in certain spheres may be curtailed or abolished for the future, his very bodily existence may be terminated. But the evil will itself is, so far, untouched, and it seems to be untouchable by any of the weapons at the disposal of authority. That is, there seems to be a hopeless discrepancy between the quality of any penalties which admit of being inflicted and the true spiritual quality of the evil. The better the true character of wrongdoing is understood, the less plausible is the theory that it can be "annulled" by any conceivable punishment.

(3) Even if there can be found some sense in which it is reasonable to speak of punishment as annulling wrongdoing, it is necessary further to ask, what is the relation of such punishment to (a) the penalty of which the wrongdoer confesses, "It serves me right"; (b) the natural and essential consequences of wrongdoing, the deterioration of the wrongdoer himself and of those influenced by him; (c) the efforts of well-wishers to reform the wrongdoer so as to induce him to act differently when the temptation next recurs? *E.g.*, Can the damnation and the salvation of the wrongdoer alike be held to exemplify the annulment of the wrongdoing?

These are ambiguities which must be cleared up by any thinker who still adheres to a retributive theory of punishment.

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W.C.1, on July 6th, 1925, at 8 p.m.*

XVII. UNIVERSALS AND PROFESSOR WHITEHEAD'S THEORY OF OBJECTS.

By L. SUSAN STEBBING.

I.

To dichotomize the universe appears to be natural both to the philosopher and to the plain man. Spinoza's axiom, *Omnia vel in se vel in alio sunt*, expresses an assumption constantly recurring in the history of thought and most succinctly expressed in the dogma that every proposition ascribes a predicate to a subject. A similar distinction appears in the following pairs of terms: (1) Substance—attribute; (2) Substantive—adjective; (3) Particular—universal; (4) Substance—characteristic; (5) Subject—predicate; (6) Thing—quality. Sometimes a distinction that would divide the same sets of entities from each other is found in the contrast between that which persists through time (or “has temporal parts”) and the timeless.

These various pairs of terms are not synonyms; far from it. They are the result of different ways of analysing the same universe; hence, the distinctions overlap and are thoroughly muddled. Nevertheless the basis of all these divisions is ultimately to be found in the contrast between substance and its attributes; this distinction is itself nearly equivalent to the contrast between substantive and adjective.

The distinction made by Prof. Whitehead between *events* and *objects* is not less sharp, and at first sight it seems as if these opposed terms would fit neatly into (3), (4) or (6) above; unless, indeed, a

quite different opposition be found, viz., the distinction made by common sense between *things* and *the events that may happen to them*. It seems to me, however, that Prof. Whitehead is not arbitrarily renaming a distinction denoted by a pair of terms already in use. His selection of new terms is made necessary by his denial of the fundamental nature of these other distinctions, so that the new pair, *event—object*, cuts across the others and does not separate the same kind of entities. Thus, according to Prof. Whitehead, material objects—the things of common sense—are not to be regarded as substances or particulars, but as “characters” of events which are said to be “in some sense the ultimate substance of nature.”

Suppose we spin a sixpence three times in succession. The successive falls of the sixpence are what the plain man would call *events*; the sixpence itself would be said to be a *material object*, a “bit of matter” having the properties which belong to the alloy of which sixpences are made. The characteristics which enable us to refer to the three successive events as three falls of the *same coin* are what are usually called “qualities” of the material thing. They are what the three events have in common and are that which enable us to recognize the sixpence. It is this permanent, recognizable character that Whitehead calls an *object*.

If I understand him rightly, Prof. Whitehead asserts that nature can be thus analysed into these two fundamentally different factors—events and objects.

Two years ago Sir Leslie Mackenzie read a paper to this Society entitled *What does Dr. Whitehead mean by “event”?* It is, I think, not less important to raise the same question with reference to Prof. Whitehead’s use of the term “object,” for he clearly uses it in a quite unusual sense intending thereby to indicate an entity not familiar to traditional philosophy, whilst rejecting some commonly accepted notions.

I propose, therefore, first to examine the meaning of "object", in Prof. Whitehead's philosophy of nature and to give some reasons for supposing that the "object" replaces the notion of a "universal"; secondly, to show that the acceptance of Whitehead's view involves the total rejection of the substance—quality category and, in consequence, a restatement of the problem as to the status of universals and their relations to particulars.

II.

As Sir Leslie Mackenzie suggests, it is certainly not easy to determine precisely what Prof. Whitehead means, for he not only uses familiar terms with a new meaning, such as *object*, *event*, *situation*; he also introduces new terms, such as *ingression*, *cognizance by adjective*, and so on. In my opinion this peculiar terminology is not a mere misuse of language, but is necessary in order to express new ideas for the expression of which no satisfactory vocabulary exists. Hence, new terms must be invented and old terms modified since, as Prof. Whitehead points out, "a different philosophic outlook radically affects all meanings."

If now we ask what meaning Whitehead assigns to "object," we might at first be inclined to reply "a universal," "a character," "a quality." Thus Dr. Broad, in reviewing *The Principles of Natural Knowledge*, says "events are pure particulars, objects are universals. The fundamental connexion between the two is that events are the situation of objects, i.e., an event is characterized as being such and such an object."* This is certainly a natural interpretation of Whitehead's meaning and much that he says directly suggests this identification of the new pair of terms with one already in use. If, however, this were the case, then we should not only have to accuse Prof. Whitehead of foolishly multiplying terms by doing violence to ordinary language,

* *Mind*, N.S., 114, p. 218.

but also, interpreting these terms in the light of traditional philosophy, we should soon be faced with insuperable difficulties in making sense of what Prof. Whitehead says about them.

It seems, then, that we cannot accept this simple identification. What, then, does he mean?

Prof. Whitehead's fundamental distinction is between that which passes never to recur and that which is repeated, or can "be again" and *therefore* can be recognized. The former are "events"; the latter "objects." In *The Principles of Natural Knowledge* Prof. Whitehead says: "Objects can be looked on as qualities of events, and events as relations between objects, or—more usefully—we can drop the metaphysical and difficult notion of inherent qualities and consider the elements of different types as bearing to each other relations."* This passage, and there are others like it,† certainly appear to justify the identification of "object" with "quality" or "universal," but in each case a significant caution is added. We must not so regard the object as a quality of the event in which it is situated as to bring it under the form of the *adjective-qualifying-substantive* relation. To do this is to attempt a false simplicity that is inadequate to the facts. It seems probable that Prof. Whitehead's view of the object developed as he worked out his philosophy. The account of its nature is much clearer in *The Concept of Nature* than in the earlier papers and *The Principles*. There are some remarks in the latter which suggest Russell's view of the physical object as the class of its appearances—a view that is surely inconsistent with the developed notion of the object.

There is not space enough, nor is it necessary, to quote at length Prof. Whitehead's own words. They will be familiar. I will, therefore, content myself with two quotations and will give references to other passages that are equally important:

* P. 60. In subsequent references this book will be cited as *P.N.K.*

† *E.g., Aristotelian Society, Supplementary*, Vol. II, p. 51.

"Objects are the elements in nature that can be again."

"Recognition and abstraction essentially involve each other. Each of them exhibits an entity for knowledge which is less than the concrete fact, but is a real factor in that fact. The most concrete fact capable of separate discrimination is the event. . . . The things recognized are what I call 'objects.' In this general sense of the term the relation of extension is itself an object. In practice, however, I restrict the term to those objects which can in some sense or other be said to have a situation in an event; namely, in the phrase 'There it is again.' I restrict the 'there' to be the indication of a special event which is the situation of the object. Even so, there are different types of objects, and statements which are true of objects of one type are not in general true of objects of other types. The objects with which we are concerned in the formulation of physical laws are material objects, such as bits of matter, molecules and electrons. An object of one of these types has relations to events other than those belonging to the stream of its situations. The fact of its situations within this stream has impressed on all other events certain modifications of their characters. . . . The total assemblage of the modifications of the characters of events due to the existence of an object in a stream of situations is what I call the 'physical field' due to the object. But the object cannot really be separated from its field. . . . The conventional limitation of the object to the focal stream of events in which it is said to be 'situated' is convenient for some purposes, but it obscures the ultimate fact of nature."—(*The Concept of Nature*, pp. 114 and 189–190.)*

I have quoted this passage at length because in it Prof. Whitehead clearly ascribes certain characteristics to objects which are not usually ascribed to universals. The following considerations seem to emerge from these statements: (1) An object cannot be isolated from its connexions with other objects; it has no definite boundaries. Thus, for example, the common-sense belief that a chair is *there* where it is *felt* to be is to be rejected as unduly simple; (2) An object is *in some sense* a character of events; (3) There are different types of objects and objects of one type are differently related to their situations from objects of another type; hence,

* Henceforward this book is cited as *C.N.*

if objects are to be said to "characterize" their situations we must admit irreducible modes of characterization.

It is not necessary to quote passages illustrating the precise distinctions made by Prof. Whitehead between the three chief types of objects, for they will be familiar to every one.* But in order to determine in what sense, if any, the *object* is a *universal* it is necessary to refer at greater length to Prof. Whitehead's treatment of the perceptual object, to the distinction between sense-object and perceptual object, and in especial to the assertion that the perceptual object is an Aristotelian adjective of its situation.

It would not be difficult to bring together various statements about the perceptual object that are mutually contradictory and single statements that are unintelligible. That task, however, I propose to leave to Prof. Whitehead's critics, so that I shall confine myself to stating what seems to me his clearest account and to emphasizing what seems to be of the most importance in his conception. In *The Principles* Whitehead says: "a physical object is a group of associations of sense-objects, each association being perceived by a percipient event with an appropriate percipient event as its locus. But the object is more than the logical group; it is the recognizable permanent character of its various situations." In illustration of this statement let us take a given perceptual object, say, a dog. As an object for perception the dog is a combination of sense-objects in the same situation. When we see the dog a sense-object of sight conveys the perceptual object as in a definite situation though not determinate in all its characters. When we are in the position of fully perceiving it we have a perceptual judgment. In the perceptual object—dog—there is to be included not only the sense-objects of sight, but also those of its barking, its smell, the feel of its coat,

* See *P.N.K.*, pp. 82-98; *C.N.*, pp. 149-159; 189-190.

and so on.* There is a difference in the immediateness of the perceptual judgment with reference to different types of sense. Thus we pass more readily from a sense-object of sight to the perceptual object conveyed by it than from a sense-object of sound. We hear the dog barking, or we stumble against him in the dark, and we judge "that dog," we see his colour and shape, and we perceive at once "this dog." Of course, in both cases we may be mistaken. For some problems these differences are of great importance, but they do not, I think, enter closely into the determination of what as such a perceptual object is. I shall not, therefore, consider them further here.†

The perceptual object, then, is an association of sense-objects in the same situation, and this association is recognized as permanent and is the same for all percipient events. A sense-object, *e.g.*, the green of this table-top, is not a momentary object; by virtue of its situation in events it endures through a finite time and has spatial parts. Its distinction from other sense-objects is more or less arbitrary. In saying that the sense-object is not momentary I am not merely saying that our apprehension takes time; I am emphasizing Whitehead's dictum that "there is no such thing as nature at an instant posited by sense-awareness." It follows that the recognition of sense-objects involves memory; hence, it cannot be mere acquaintance. Moreover, the green is discriminated as related to other factors in nature,

* Cf. *Arist. Soc., Supplementary*, Vol. II, p. 54. "For example, you see a horse. Primarily you have seen the colour of the horse in a certain situation. But it is the horse you have perceived and not merely his colour. A set of faintly discriminated sense-objects have been 'conveyed' to you by the sight of the colour."

† Dr. W. E. Johnson in his *Logic*, Pt. II, pp. 5-6, raises the question as to "how much is contained in the percept besides the immediate sense-experience?" His discussion seems to me relevant to Whitehead's theory of the "conveyance" of the perceptual object by the sense-object.

and in particular as situated in the event which is its situation. But this event is its situation only for a given percipient event ; hence, a sense-object is a term in a multiple relation some of the other terms of which are the percipient event, the situation and the transmitting conditions. It is not therefore capable of being represented as a two-termed relation of adjective to substantive. To quote here Prof. Whitehead's own words :

"Green appears to an observer in a situation distinct from that of the observer, but simultaneous with it. Thus there is essential reference to three simultaneous events, the event which is the bodily life of the observer, called the percipient event, and the event which is the so-called situation of the green at the time of observation, and to the time of observation which is nothing else than the whole of nature at that time."*

The representation of the sense-object as a universal qualifying a particular involves the suppression of the percipient event as well as of the intervening medium. These being always present are naturally forgotten in dealing with normal sense-awareness, so that the substance-quality category appears to be appropriate. Prof. Whitehead has dealt at length with the bifurcation of nature which results from this misunderstanding.

But the perceptual object is quite different in this respect from the sense-object. So far as I can understand it follows from the differences between the sense-object and the perceptual object that the latter is a true Aristotelian adjective of its situation, whereas the former is not. This comes about in this way.

In order that an object may be a true adjective of an event which is its situation it must have uniqueness and must pervade the events it qualifies. Prof. Whitehead defines a pervasive adjective as follows :

"A factor will be said to be an adjective pervading a route when it is an adjective of every stretch of the route. Such a factor will be called a pervasive adjective, or uniform object."†

* *Principle of Relativity*, pp. 26-27.

† *Ibid*, p. 32.

In his Presidential address to this Society, Prof. Whitehead summed up the nature of the perceptual object in an important passage,* declaring that it is a pervasive adjective of its situation. He added, "A sense-object has also in general the pervasive property; but its relation to its situation is entirely different from that of a perceptual object, in that it is derived from its ingression in nature, which is an irreducible many-termed relation." It must be noted that it is because perceptual objects have lost the complexity of ingression that they are true adjectives of events, and as such are situated in finite events which they signify. These perceptual objects are, it must be remembered, the material objects which we call "things," viz., chairs, planets, water, trees. We are therefore asserting both of the following propositions: (1) Perceptual objects are ordinary common-sense things, *e.g.*, a chair. (2) Perceptual objects are adjectives of their situations. From these two propositions it follows that *chairs* are adjectives of their situations. At this point some philosophers are inclined to reject this whole theory of objects as absurd.

The difficulty, however, arises from our failure to grasp what is meant by "situation" and "ingression"; from our inveterate habit of forcing all philosophies into the framework of Aristotelian categories; and finally, from an undue reliance upon the ultimate philosophical importance of Indo-European languages.

Every relation of object to event can be subsumed, Whitehead asserts, under the general relation of *ingression*. At first sight such relations as "situation" and "influencing" (which term is used to include causation) appear to be totally different kinds of relations incapable of being classed together. But to suppose this is, Prof. Whitehead says, an entire mistake.† The

* *Proceedings of the Aristotelian Society*, 1922-23, p. 15.

† *C.N.*, p. 160. Whitehead points out that the various meanings of "situations" are so different that different words might just as well have been used here as in the case of "influencing."

situation of an object is not "there" in a position such that its *position* can be regarded as one thing and its *influencing* as another. No sharp distinction can be drawn between them.* Moreover, the meaning of "situation" is different for different types of objects. In normal perception the situation of the sense-object and the situation of the perceptual object are intimately connected; in the case of some objects, however, *e.g.* a distant star, or an object seen through a mirror, there is not an *intimate* connexion between the situations although they are still so connected that we can correlate the sense-object and the perceptual object. Since the situations of a physical object are unique and continuous the object is common to many percipient events and may be said to be "neutral" between them; the reverse is the case with the sense-object.

Thus objects are related to events in various ways, *i.e.*, there are fundamentally different modes of ingression, and not a unique relation of "characterization." What, then, is the justification for regarding the "object" as a universal?

III.

At this point it would be well to ask what is meant by "universal." It is extremely difficult to answer this question. The problem of the status of universals and of their relation to particulars has given rise to various conflicting views. Doubtless the disputants mean to refer to the same entity, but their analyses conflict, nor does prolonged discussion tend to bring about agree-

* In my opinion it is no small merit of this theory of objects and ingression that it requires a new treatment of the problem of causation, which avoids most of the traditional difficulties in the conception of causal connexion. This theory, unfortunately, cannot be expounded in a footnote.

ment. The question as to the status of universals has lately been described as "that most troublesome of all logical problems."* It will be sufficient for our purpose to refer briefly, to the most recent treatment of the topic by Prof. Moore, Prof. Stout and Prof. G. Dawes Hicks.† Prof. Stout's *Hertz* lecture is too well known to need summarizing. I think that Prof. Stout and Prof. Moore hold that "is a particular" "is a concrete thing" and "is a substantive" all mean the same. They also seem agreed that "is a universal" implies "is that which it is logically possible should be predicated of something else," and further they agree that what is *not* capable of being predicated of anything at all is a substantive.§

It seems to me that "being predicable of something else" entails "could belong to more than one thing," and by "could" I mean "is logically possible that it should." I am not sure whether Prof. Moore and Prof. Stout would agree to this, but I think they would. They do not agree amongst themselves as to *what* it is that is predicable of more than one thing, since, *e.g.*, Prof. Stout holds that a sneeze can be predicated of, say, Jones, whereas Prof. Moore is certain that it cannot be predicated of anything at all.

From this account it seems that the property which a universal possesses and a particular does not is "being capable of being

* Prof. N. Kemp Smith in "Whitehead's Philosophy of Nature," published in *Issues and Tendencies in Contemporary Philosophy*, p. 212.

† G. F. Stout. *The Nature of Universals and Propositions*. Symposium by Moore, Stout and Dawes Hicks. *Aristotelian Society, Supplementary*, Vol. III.

§ Prof. Moore expressly rejects McTaggart's view that *events* can be substances; to call them so is, he says, "a mere misuse of language" (*loc. cit.* p. 99). But he admits them to come under Johnson's category of *Substantives proper*, and thus not to be predicable of anything whatever.

predicated of something else" or "being capable of belonging to more than one thing." As thus stated the distinction between universals and particulars is so far clear, and to me it appears fundamental, though I know of no way of justifying this belief. Prof. Moore says "is predicable of something else" is a perfectly clear notion. Perhaps it is, but I am rather doubtful. If we accept Whitehead's view we shall have to admit that the phrase covers different relations. Again, the way in which the opposition between universal and particular has just been stated suggests that the distinction is essentially that between what is *in se* and what is *in alio*. That there is a distinction seems fairly certain, but what its precise nature may be is more doubtful, as well as what exactly is its application to the real world. It is in pursuing the last inquiry that philosophers have so often gone astray.

Dr. W. E. Johnson is perhaps alone amongst recent writers in finding little difficulty in the problem of universals. He disposes of the matter in a few lines, as follows :

"The distinction and connexion between substantive and adjective correspond to—and, in my view, explain—the distinction and connexion between particular and universal. Ultimately a universal means an adjective that may characterize a particular, and a particular means a substantive that may be characterized by a universal. The terms particular (or substantive) and universal (or adjective) cannot be defined as functioning in isolation, but only as they enter into union with one another."*

This statement is too brief to be of much use in throwing light upon the problem and is chiefly valuable, I think, in its denial by implication of the ordinary view that a substantive is essentially that which can stand alone, whereas an adjective needs a substantive

* *Logic*, Pt. I, p. 11. Cf. also Pt. II, p. 5, 2 n.

of which it may be predicated.* Dr. Johnson, however, accepts the traditional Aristotelian view of the relation of predication, or characterization, and with it, so it seems to me, all the difficulties that arise from the acceptance of the subject—predicate proposition as adequate to the expression of fact.

The most prevalent view of the nature of a universal may, then, be said to be that which regards it as a character, or adjective, predicable of a substantive, or logical subject, to which it stands in one invariable relation of "predication"—the grammatical relation of adjective to noun.

IV.

With such a view of the universal in mind we must proceed to ask whether Whitehead's "object" is a "universal." We shall find that to answer this question in the affirmative would compel us to reject part of the above account of the nature of a universal and to include characteristics which have never been supposed to belong to universals.

The character of the "object" in relation to "universals" is made clearer, I think, in the chapter on "Figures" in *The Principles*, a chapter to which suprisingly little attention has been paid by Prof. Whitehead's critics. Two kinds of figures are distinguished, sense-figures and geometrical figures. In his exposition of these figures, Prof. Whitehead mentions another type of object—"generalized sense-objects."

I want to attempt to make clear the relation between these three kinds of objects. But I make the attempt with some

* See, for instance, Russell in *Contemporary British Philosophy*, pp. 375-6. "Attributes and relations . . . differ from substances by the fact that they suggest a structure, and that there can be no significant symbol which symbolizes them in isolation."

hesitation, for the conception seems to me extremely difficult and I fear that it is quite likely that what I am going to say may misrepresent Whitehead's thought.

So far as I can understand the position is this. Take an example—green—and then various shades of blue. Green is a sense-object and is the element of sameness in two green patches. The analogy between greens of different shades yields a “generalized sense-object.” Now, the way in which green ingresses into events is unique to green; the way in which blue ingresses is unique to blue; and so on. Each such mode of ingression involves certain relations of the sense-objects with regard to their situations in relation to other events. This relation is a sense-figure. It follows from what has just been said as to the uniqueness of each mode of ingression that different shades of green have different sense-figures, and these again are all different from the sense-figures of blue. If now we compare the modes of ingression and the consequent relations which give rise to sense-figures—of the various greens *inter se*, and then compare these with the various blues *inter se*, and again with the various reds *inter se*, we shall find that the figures of the greens are more like each other than any of them is to the figures of the blues, and so on. Again, if we compare the figures of colour with the figures of shape, or with figures of touch, we shall find that the same relation holds. Thus we can recognize more and more generalized sense-figures.

If now we carry on the generalizing process until we have abstracted from every particular sense, from touch, from sight, from smell, etc., then we get the “concept of the relation of any sense-object to the volumes of its situation.” This generalized figure is the geometrical figure of the object. The likeness of generalized figures is psychologically more obvious than that between generalized sense-objects; it has what Prof. Whitehead calls a “higher perceptive power.” Thus “we first notice a

dark-blue figure and pass to the dark-blueness.”* This figure is itself an object, but not a perceptual object. Being an object the figure is only derivatively in space and time by reason of its situation in events. If this were not so, then space would be deducible from the relations between figures, *i.e.*, objects, and since there are different types of figures for all the different kinds of sense, there would be different kinds of space *viz.*, visual, tactual, and so on. Likewise, there would be different kinds of time, a tactual time, a visual time, and so on. Some philosophers have accepted this conclusion with regard to kinds of space; few would be bold enough to accept it with regard to kinds of time. But both must be rejected together.

In these generalized figures we seem clearly to have examples of what every one would call “abstract universals.” In order to understand Whitehead’s position here it seems to me of the utmost importance to grasp the rôle of abstraction in his philosophy of nature. All “factors of fact” or “entities” are embedded in an all-embracing fact, so that there is a sense in which “all particulars are abstractions”—houses, water, minds. There is, Whitehead says, “no such entity as mere A in isolation. A requires something other than itself, namely, factors expressing the patience of fact in respect to factor A.”†

It is not uncommon to speak of universals of lowest order, of higher order, and so on. A sense-object corresponds to a universal of lowest order, whereas a generalized sense-object, such as colour, shape, corresponds to a universal of higher order; hence, the sense-figure of colour will be of a higher order than the sense-figure of a specific colour, such as green. According as the degree of abstraction involved is greater or less, so the order will be higher or lower. Since an object essentially involves the possibility

* *P.N.K.*, p. 192.

† *The Principle of Relativity*, p. 24. Cf. also *Presidential Address*, p. 9.

of being recognized, and since there is no recognition without abstraction, it follows that objects as such are more or less abstract, *i.e.*, are necessarily of higher or lower order. The figure will be repeated again and again, but in no sense is there a figure apart from the ingression of objects into events.

Objects, then, are abstractions from the concrete Factuality in which they are embedded. (So, too, are events, but we are not here concerned with these factors of Fact.) A difference in kind is usually made between the "object" that is abstracted and the "concrete thing" which it is said to "qualify"—between the "green" and the "tree" that is green. Whitehead's theory, if I understand it rightly, is a sustained protest against this view. We are not holding *something abstracted from things* before the mind; we are in a complex relationship to factors of Fact, and these factors, as terms in this relationship, have an individuality that is the result of being in the relation.* The understanding of this is, I think, bound up with Prof. Whitehead's view of two-fold cognizance†. He says that we *can* know by *mere adjective*, and this knowing is, I think, what is meant by "apprehending a universal"; it involves, I should suppose, a considerable degree of abstraction, whereas perception, which involves both kinds of cognizance, is less abstract. We do not

* See *The Principle of Relativity*, pp. 19-20; 62-63.

† To translate "cognizance by adjective" into "knowledge by acquaintance" and "cognizance by relatedness" into "knowledge by description" seems to me to show a complete misunderstanding of Whitehead's point of view. There are important differences between the two pairs of terms, of which I will mention only two: (i) Whitehead does not hold that one way of knowing is prior to the other; (ii) the two ways are *necessarily* concerned with fundamentally different kinds of entities. This habit of "translating" Whitehead's terms is an insuperable obstacle to understanding him.

then *perceive* those "abstracts" that are usually called "universals"; we know them in a special way. But the "universals" are not different in kind; they are only more abstract. Hence, what I have been calling a "universal" in opposition to Whitehead's "object" is --if the phrase may be permitted-- an *over-universalized object*. This over-universalized entity is the result of a too extreme abstraction that ignores the necessary relatedness of the "objects" to other "objects" and its essential ingression in events. Hence this over-universalized entity is taken as being predicated of a "real thing" from the realness of which it can be abstracted; it becomes an "adjective" such that its only relation to substances is that of characterization. The habit of *over-universalizing* is the more easily developed because it is encouraged by our language. It would, however, be surprising if the structure of a language-sentence corresponded precisely to a real division of fundamental entities, for language seems to me the product of common sense, which is neither free from metaphysical prejudices nor aware of any need to criticize them.

This over-abstraction of the "object" is the natural outcome of a common but erroneous assumption, viz., that it is logically possible that material objects should exist in a momentary space. Prof. Whitehead rejects this assumption. Even the simplest material entity requires time for its functioning. Thus he says, "No single characteristic property of iron as such can be manifested at an instant. . . . There is no such thing as iron at an instant; to be iron is a character of an event."* "Universals" consequently are not to be considered timeless and non-spatial in any sense in which "objects" as such are not also timeless and non-spatial; all alike are in time and space only in virtue of their relations to events.

* *P.N.K.*, p. 23.

V.

Throughout the last section I have used the term "universal" as a comma, to denote an "object" of a very high degree of abstraction to which the name *universal* is commonly applied. I have now to answer the question in what sense, if any, this name may be applied to Whitehead's "object." Certainly they agree in important respects. An "object," like a "universal," is "predicable of something else" and, as such, it can be in more than one place at once. This property of "being predicable of something else" is, we found, the distinctive property of a "universal." Hence, it would seem to follow that what can be asserted of the "universal" as such can be asserted also of the "object" as such. Yet the consequences of some of these assertions appear to be paradoxical.

There is, moreover, a quite fundamental difference between the "universal" and the "object" to which reference has already been made. It is commonly supposed that there is only one relation in which a "universal" stands to its particular, viz., as "qualifying" it. To confuse "qualifying" with "influencing" or with "causing" would be a grave misuse of language. But it is Whitehead's contention that an "object" may be related to an event in any of these ways, and in many others, *without thereby ceasing to be an "object."* It follows that an "object" is much more than, or very different from, a "universal." At the same time the "universal" is *one* kind of "object" and differs from *all* other "objects" only in (i) the degree of abstraction that it involves; (ii) the peculiar mode of its ingression in events. But all kinds of "objects" differ from one another in respect to the degree of abstraction involved and the peculiar mode of its ingression. There is, therefore, no good

reason for refusing to call a "universal" an "object." Quite the contrary.

On the other hand, it is inadvisable to substitute* "universal" for "object" without considerable qualification just because "universals" are only *one* kind of "objects" and their relation to particulars is assumed to be invariable and simple—viz., the "universal" is *predicable* of the particular, and "predicable of" is assumed to be a clear and simple notion. Prof. Whitehead, however, thinks otherwise. He says, "Personally I think that predication is a muddled notion confusing many different relations under a convenient common form of speech."† These different relations are the various modes of ingression about which we have said so much. The simplest of these relations is that properly called "predication" in which an adjective qualifies a substantive. This is the relation that Whitehead says holds between a material object and its situation. It is a simple two-termed relation and nowhere else in nature is such a relation found. This conclusion is certainly paradoxical, but the paradox comes, I think, from our habit of *over*-abstracting the adjective and—if the phrase be permitted—*under*-abstracting the substantive.

The relation of the sense-object—which is *also* an "object"—is not one of predication, for, as we have already pointed out, it is a term in a multiple relation. The relation of the scientific object to its situation is again fundamentally different. To use one term "predication" for all these relations is to make one *word* cover "radically different relations between entities."

It is at this point that language aids the "muddle of predication." Compare, for instance, the following three propositions :—

* In an article in *Mind*, N.S. 131, I made the mistake of simply identifying "object" and "universal."

† *C.N.*, p. 18.

- (i) This table-top is green.
- (ii) "This is green," where *This* stands for the immediately discerned event, viz., the patch in which the green colour is situated.
- (iii) "This is a table."

The first two of these propositions are of the same grammatical form, and each appears to ascribe a predicate "green" to a substantive. As I understand Prof. Whitehead, he would say that in neither of these two propositions does "is" indicate the relation of adjective to substantive. In (ii) "green" is a sense-object and "This" is the event in which the green is situated for a given percipient event under given conditions. Thus both "This" and "green" are here terms in a multiple relation involving other terms; and the green may be in more than one situation. It must be remembered that "green" is a sense-object, not a particular having a quality. In (iii) "a table" is an adjective predicated of an event, so that this proposition does ascribe an adjective to a substantive. In (i) "This table top" is a perceptual object and "green" is a sense-object.

I think the propositions may be restated as follows :-

- (i) "The perceptual object (table-top) contains as a member of the group of sense-objects -- which is the perceptual object -- a green sense-object."
This sense-object "green" is the dominant sense-object and conveys the rest.
- (ii) "This" speculatively demonstrates the "green" sense-object.
- (iii) "This" speculatively demonstrates an event which is qualified by an adjective "table."

If this interpretation be correct, it is obvious that the relation denoted by "is" is different in each case.*

The interpretation of (iii) probably seems the most absurd. This account must obviously be rejected as nonsense by those philosophers who hold (as many do) that the most fundamental distinction is between "things" which we perceive and "the qualities" which we perceive them as having. But clearly it is just *this* distinction that Prof. Whitehead wants to deny. Its denial is, I think, equivalent to denying the ultimateness of the category of quality. By "denying the ultimateness" I mean precisely that the category of quality does not correspond to any fundamental distinction between the factors of Fact. It is a product of language and human intercourse. I suggest, very tentatively, that possibly the importance assigned to the category of quality may be explained in this way.

The sense-object involves a reference to a given percipient event; it is in a sense private. The perceptual object does not involve such a reference; it is neutral as between various percipient events, hence all reference to the percipient event can be

* See *C.N.*, pp. 18-19. The passage is so important that I will quote it at length: "Personally I think that predication is a muddled notion confusing many different relations under a convenient common form of speech. For example, I hold that the relation of green to a blade of grass is entirely different from the relation of green to the event which is the life history of that blade for some short period, and is different from the relation of the blade to that event. In a sense I call the event the situation of the green, and in another sense it is the situation of the blade. Thus in one sense the blade is a character or property which can be predicated of the situation, and in another sense the green is a character or property of the same event which is also its situation. In this way the predication of properties veils radically different relations between entities. Accordingly, 'substance,' which is a correlative term to 'predication,' shares in the ambiguity."

dropped. The perceptual object can thus be regarded as a *quality* of its situation. This Prof. Whitehead maintains to be the nature of the perceptual object. I am not suggesting that it is commonly so regarded; on the contrary, the reference to the event is neglected and the "quality" is made into a particular thing which is now conceived as "having qualities," viz., the sensible qualities commonly predicated of the sense-datum. But in one way or the other there is the two-termed relation of quality to substance. Owing to the importance of our social interests the perceptual object is naturally regarded as more fundamental than the sense-object, since the former is neutral to all observers and the latter is not. Thus it may come about that quality is regarded as a fundamental and unanalysable category of the real. And, as has already been said, language—the product of social intercourse—stiffens the prejudice.

For Western philosophers the difficulty of freeing oneself from the predominance of the substance-quality category is very great owing to the influence of Aristotle and the scholastics. Nowadays most people will admit that Aristotle was seriously misled by his reliance upon the structure of language to supply an analysis of logical forms; that, consequently, he mistook the accidental prominence of the attributive type of sentence in Indo-European languages for a characteristic of the real universe. Hence the long line of philosophers who accepted without hesitation the axiom which I quoted at the beginning of this paper—*omnia vel in se vel in alio sunt*. The difficulty has been increased, not lessened, by the fact that *substance* (that which is *in se*) is admittedly a confused notion—incapable of definition, having various meanings and functions in various contexts and in different philosophies, easily confused with "particulars" and yet often necessarily to be distinguished from them.

If *Substance-Quality* be taken as the fundamental category, then the status of universals and their relation to particulars

becomes the main problem of philosophy. And, indeed, so it has often been considered. From such a standpoint it is impossible to do justice to Whitehead's philosophy, which depends upon its rejection as inadequate to the complexity of nature.*

VI.

In this paper I have been attempting to give some reasons for believing the following propositions :—

(1) There are important resemblances between Prof. Whitehead's "object" and what is commonly called a "universal."

(2) But, simply to substitute "universal" for "object" without qualification is seriously misleading for the following reasons :—

(a) "Universals" are a unique and important type of "objects," but there are other types of "object" having various fundamentally different relations to events, which cannot be brought under the one term "predication"—the relation holding between a universal and a substantive.

(b) Among these other relations are those of "influencing" and "causing" and various kinds of "situation"; none of these relations of objects to events are connected with those characteristics that "universals" share with all "objects."

(c) To reduce all "objects" to "universals" is to make Quality a fundamental category; but this is exactly contrary to Whitehead's intention.

* Cf. "in the apparent world, that is to say in the world of nature disclosed by sense-awareness, no example of the simple two-termed relationship of a universal signifying its particular is to be found."—(*The Principle of Relativity*, p. 26.)

(2) The identification is inconsistent with the acceptance of irreducible multiple relations. But the relation of situation is usually multiple.

(3) All objects are abstracted from Fact, sense objects and perceptual objects as well as "universals" or "qualities." So, too, are all particulars, including Common Sense Things.

(4) The acceptance of the third proposition is of great significance in the construction of a philosophy of Nature.

(5) All knowledge involves abstraction and recognition; hence, all knowledge involves memory. The notion of a momentary mind is absurd.

Had space permitted I should like to have dealt with the notion of the scientific object. I must, however, limit myself to the following comment.

It is easy to suppose that the scientific object is merely a "concept"—an abstraction that "works" in scientific formulæ. It has been so interpreted by Prof. E. W. Hobson,* and this view may possibly receive some support from Prof. Nunn.† In determining what Prof. Whitehead means by "object" it is of the utmost importance to remember that he attributes the same kind of reality to sense-objects, to physical things and to the entities with which the scientist is concerned. Scientific objects are conceived as causal; concepts do not *cause*, nor do they act and interact. Scientific objects are abstractions only as bricks, houses, minds are abstractions.‡

* E. W. Hobson. *The Domain of Natural Science*.

† *Presidential Address*. Prof. Nunn does not wish, I think, to assert that Prof. Whitehead agrees with this view of the scientific object.

‡ See the very important passage, *C.N.*, p. 163: "Evolution in the complexity of life means an increase in the types of objects directly sensed. Delicacy of sense-apprehension means perceptions of objects as distinct

The inclusion of minds among objects abstracted raises a problem with the indication of which I will conclude. In *The Concept of Nature*, Prof. Whitehead deliberately excludes mind from consideration on the ground that "Nature is closed to mind." I have dealt elsewhere with some of the difficulties that this exclusion suggests.* But there is a further point. The recognition of objects depends upon abstraction; hence they are in some sense dependent upon being selected. In the first chapter of *The Concept of Nature*, Prof. Whitehead makes a remark in passing that seems to me extremely significant, but which he does not develop. Having made his curious distinction between "metaphysics" and "philosophy," the latter of which deals exclusively with the nature that is closed to mind, Prof. Whitehead says "The values of nature are perhaps the key to the metaphysical synthesis of existence."* Shall we not find that these values determine the selecting? If so, is there not an essential connexion between mind and nature?

To pursue this question would take me too far from the main topic of this paper, though I do not personally doubt that the relation of mind to nature is essential for the theory of objects, and "minds" are more than "objects."

All that I have attempted here is to try to establish the view that the acceptance of Prof. Whitehead's theory of objects involves a restatement of the problem of universals, and even that the restatement may possibly bring us within sight of the solution

entities which are mere subtle ideas to cruder sensibilities. The phrasing of music is a mere abstract subtlety to the unmusical; it is a direct sense-apprehension to the initiated. For example, if we could imagine some lowly type of organic being thinking and aware of our thoughts, it would wonder at the abstract subtleties in which we indulge as we think of stones and bricks and drops of water and plants."

* *Mind*, N.S., 131.

of this ancient problem. I do not wish to suggest that Prof. Whitehead's theory is not itself full of difficulties, but merely to point out the exact way in which the question of universals is relevant to this theory, and to guard against a possible misinterpretation due to our habit of "translating" a philosopher's terms into other terms that he has taken the trouble to repudiate. This practice is unfortunate; it creates gratuitous difficulties in a theory already bristling with difficulties. But it is not my intention to raise these difficulties on the present occasion.

ABSTRACT OF THE MINUTES OF THE PROCEEDINGS OF THE ARISTOTELIAN SOCIETY FOR THE FORTY-SIXTH SESSION, 1924-1925.

THE Meetings of the Session were held in the Conference Hall of the University of London Club, Gower Street, London, on Monday evenings, at 8 p.m.

November 3rd, 1924.—Prof. A. D. Lindsay, President, in the Chair. The President delivered the Inaugural Address, "What Does the Mind Construct?" Discussion: Prof. Nunn, Prof. Wildon Carr, Mr. Hannay, Miss Sinclair, Mr. Joad, Prof. Wolf, Dr. Thomas, Mr. Mead, Miss Oakeley, Prof. Langley and Mr. Harley.

November 10th, 1924.—Prof. A. D. Lindsay, President, in the Chair. His Honour Judge Dowdall: "What is a Society?" Discussion: Prof. Lindsay, Dr. Ginsberg, Prof. Carr, Prof. Langley, Mr. Hannay, Mr. Mead, Mr. Cator, Mr. Shaw Stewart, Mr. Holban, Mr. Morant.

December 1st, 1924.—Prof. H. Wildon Carr, Editor, in the Chair. Prof. J. A. Smith: "Prof. Alexander's Space Time." Discussion: Prof. Carr, Mr. Mead, Mr. Hooper, Miss Sinclair, Prof. Wolf, Mr. Harley, Mr. Hannay, Miss Oakeley, Prof. Langley, Mr. Kendall, Dr. Thomas.

December 15th, 1924.—Prof. H. Wildon Carr, Editor, in the Chair. Prof. L. J. Russell: "Science and Philosophy." Discussion: Prof. Carr, Mr. Joad, Mr. Cator, Mr. Hannay, Dr. Thomas, Dr. Jessie White, Mr. Mead, Prof. Johnstone.

January 5th, 1925.—Dr. F. W. Thomas, Treasurer, in the Chair. Prof. G. Dawes Hicks: "The Dynamic Aspect of Nature." Discussion: Dr. Thomas, Prof. Laird, Mr. Cator, Prof. Langley, Mrs. Duddington, Dr. Jessie White, Mr. Hannay, Miss Stebbing.

January 19th, 1925.—Dr. F. W. Thomas, Treasurer, in the Chair.

Mr. W. O. Brigstocke: "Pickwickian Senses." Discussion: Dr. Thomas, Mr. Mead, Prof. Scott, Mr. Shaw Stewart, Prof. Langley, Dr. Jessie White, Mr. Cator, Mr. Hannay, Mrs. Hodson, Mr. Ionides, Mr. Morant.

February 2nd, 1925.—Prof. T. P. Nunn, V.P., in the Chair.

Prof. G. H. Langley: "Values and Temporal Experience." Discussion: Prof. Nunn, Mr. Hannay, Dr. Thomas, Mr. Mead, Dr. Shaw Stewart, Dr. Jessie White, Mr. Morant, Mrs. Roberts, Mr. Nott.

February 16th, 1925.—Prof. T. P. Nunn, V.P., in the Chair.

Dr. James Drever: "The Meaning of Consciousness for the Psychologist." Discussion: Prof. Nunn, Dr. Henry Head, Dr. Aveling, Mr. Joad, Mr. Needham, Mr. Kendall, Mr. Hannay, Dr. Thomas, Mr. Mead, Dr. Jessie White, Mr. Bartlett, Dr. Singer.

March 16th, 1925.—Prof. T. P. Nunn, V.P., in the Chair. Mr.

R. G. Collingwood: "The Nature and Aims of a Philosophy of History." Discussion: Prof. Nunn, Mr. Joad, Prof. Toynbee, Mr. Hannay, Prof. Langley, Mr. Mead, Mr. Child, Mr. Harley, Mr. Holban, Dr. Thomas.

March 23rd, 1925.—Prof. A. D. Lindsay, President, in the Chair.

Mr. J. H. Harley: "The Theory of the State." Discussion: Prof. Lindsay, Mr. Hannay, Dr. Thomas, Mr. Nott, Mr. Mead, Mr. Child.

April 6th, 1925.—Prof. T. P. Nunn, V.P., in the Chair. Mr. P.

Leon: "Æsthetic Knowledge." Discussion: Prof. Nunn, Mr. Hannay, Dr. Thomas, Mr. Mead, Miss Stebbing, Mr. Shaw Stewart, Mr. Ionides, Mr. Morant, Dr. Jessie White, Mr. Nott, Mr. Child, Mrs. Roberts.

April 20th, 1925.—Prof. H. Wildon Carr, Editor, in the Chair.

Dr. Jessie White: "The Relation of Pedagogy to Philosophy." Discussion: Prof. Carr, Prof. Nunn, Mr. Brigstocke, Mr. Brock, Mr. Hannay, Mr. Mead, Mrs. Pannett, Dr. Thomas, Mr. Morant, Mr. Cator, Mr. Nott.

May 4th, 1925.—Prof. H. Wildon Carr, Editor, in the Chair.

Mr. C. R. S. Harris: "Duns Scotus and his Relation to Thomas Aquinas." Discussion: Prof. Carr, Mr. Cator, Dr. Singer, Mr. Hanson, Mr. Hughes, Mr. Hannay, Mr. Mead.

May 18th, 1925.—Prof. H. Wildon Carr, Editor, in the Chair.
 Prof. J. Laird: "The Nature of Ideas." (In Prof. Laird's absence, owing to illness, the paper was read by the Hon. Secretary.) Discussion: Mr. Joad, Prof. Nunn, Prof. Carr, Mr. Mead, Dr. Jessie White, Mr. Harley, Mr. Hannay, Mr. Hanson, Prof. Langley.

June 8th, 1925.—Prof. A. D. Lindsay, President, in the Chair.
 Symposium: "The Subject-Object Relation in the Historical Judgment." Mr. A. H. Hannay, Prof. H. Wildon Carr, Prof. T. P. Nunn. Discussion: Prof. Lindsay, Dr. Thomas, Major de Montmorency, Mr. Joad, Miss Oakeley, Mr. Cator, Dr. Goldsbrough.

June 29th, 1925.—Prof. H. Wildon Carr, Editor, in the Chair.
 Prof. W. H. Moberly: "Some Ambiguities in the Retributive Theory of Punishment." Discussion: Prof. Wildon Carr, Mr. Hannay, Prof. Laird, Mr. Ionides, Dr. Jessie White, Miss Stebbing, Mr. Nott, Mr. Ray, Mr. de Montmorency, Dr. Thomas, Mr. Cator, Mr. Mead.

July 6th, 1925.—Prof. H. Wildon Carr, Editor, in the Chair.
 Miss L. S. Stebbing: "Universals and Prof. Whitehead's Theory of Objects." Discussion: Prof. Wildon Carr, Prof. Wolf, Dr. Thomas, Mr. Joad, Miss Oakeley, Mrs. Hodson, Mr. Mead, Mr. de Montmorency.



MINUTES OF THE 15TH JOINT SESSION OF THE ARISTOTELIAN SOCIETY AND THE MIND ASSOCIATION,
HELD IN CONJUNCTION WITH THE OXFORD
PHILOSOPHICAL SOCIETY AT BALLIOL COLLEGE,
OXFORD, JULY 24-26, 1925.

Present: Mr. Ainslie, Prof. S. Alexander, Sir R. Armstrong-Jones, Mr. Attlee, Mr. R. J. Bartlett, Mrs. Beer, Mr. Brigstocke, Prof. W. Adams Brown, Prof. H. Wildon Carr, Dr. C. Castaner, Mr. E. T. Champness, Mr. E. C. Childs, Mr. F. C. Constable, Mr. R. F. Cooper, Mrs. Crosthwaite, Mr. A. Dorward, Dr. G. C. Field, Mrs. Field, Mr. E. Gareke, Mr. J. C. Gregory, Dr. J. S. Haldane, Mr. A. H. Hannay, Miss K. C. Hare, Mr. J. H. Harley, Mr. J. W. Harvey, Mr. G. H. Haydock, Prof. A. E. Heath, Prof. G. Dawes Hicks, Mrs. Hicks, Mr. S. E. Hooper, Prof. H. H. Joachim, Mr. C. E. M. Joad, Mr. H. W. B. Joseph, Miss Kitay, Prof. A. D. Lindsay, Prof. A. MacBeath, Mr. C. A. Mace, Mrs. Mace, Mr. J. Macmurray, Dr. Ivy MacKenzie, Mr. W. H. O'N. Manning, Mr. J. C. McKerrow, Prof. G. E. Moore, Prof. J. S. Moore, Dr. P. E. More, Mr. George Morley, Mrs. Morley, Mr. C. R. Morris, Mr. F. R. Nott, Miss H. D. Oakeley, Mr. R. L. Patterson, Mr. J. E. Phillips, Dr. Benjamin Rand, Dr. L. A. Reid, Prof. A. Robinson, Mrs. Robinson, Miss A. F. Robinson, Miss B. D. Robinson, Prof. G. R. T. Ross, Dr. W. D. Ross, Mr. Leon Roth, Prof. L. J. Russell, Mrs. Russell, Dr. F. C. S. Schiller, Prof. J. W. Scott, Rev. F. Seth-Smith, Rev. C. R. Shaw Stewart, Prof. C. Spearman, Mr. W. O. Stapledon, Mr. H. Sturt, Prof. J. A. Smith, Miss J. E. Smith, Mr. C. W. H. Sutton, Mr. Swabey, Mrs. Swabey, Dr. F. W. Thomas, Mr. J. M. Thorburn, Mr. C. J. Turnadge, Mrs. Turnadge, Mr. J. Walker, Miss E. M. Worthington, Sir Francis Young-husband, Miss Wells.

First Session: July 24th, 1925, at 8.30 p.m.—Prof. A. D. Lindsay in the Chair—Symposium: "The Nature of Intelligence," Prof. H. Wildon Carr, Prof. C. Spearman. Prof. A. Wolf

who had written the second paper was unable to be present.
 Discussion: Mr. Joseph, Prof. J. A. Smith, Mr. J. Macmurray, Prof. G. C. Field, Prof. A. E. Heath, Mr. J. H. Harley, Prof. G. R. T. Ross, Mr. A. H. Hannay, Prof. A. Alexander.

Second Session: July 25th, at 10 a.m.—Prof. G. E. Moore, in the Chair.—Symposium: “The concept of Energy.” Prof. Leonard J. Russell, who had been unable to contribute the paper announced in the programme, opened the symposium, followed by Mr. C. R. Morris and Dr. Dorothy Wrinch. Discussion: Mr. J. Macmurray, Mr. F. C. Constable, Prof. S. Alexander, Prof. A. E. Heath, Mr. Sutton.

Third Session: July 25th, at 2.30 p.m. Chairman: Dr. J. S. Haldane. “The Biological Basis of the Sense of Time,” Dr. Ivy Mackenzie. Discussion: Prof. H. Wildon Carr, Mr. J. H. Harley, Mr. F. C. Constable, Mr. Sturt, Prof. G. R. T. Ross, Mr. A. H. Hannay, Mr. S. E. Hooper, Prof. L. A. Reid, Dr. F. W. Thomas.

Fourth Session: July 25th, at 8.30 p.m.—Chairman: Prof. H. Wildon Carr.—Symposium: “The Economic Doctrine of the Concept,” Prof. J. A. Smith, Dr. F. C. S. Schiller, Prof. A. D. Lindsay. Discussion: Prof. S. Alexander, Prof. G. E. Moore.

Fifth Session: July 26th, at 2.30 p.m. Chairman: Miss H. D. Oakeley.—Symposium: “Platonic Philosophy and Aristotelian Metaphysics,” Mr. Paul E. More, Prof. W. D. Ross, Prof. G. Dawes Hicks. Discussion: Prof. G. C. Field, Prof. J. A. Smith, Mr. A. H. Hannay, Prof. G. R. T. Ross.

Sixth Session: July 26th, at 8.30 p.m. Chairman: Prof. S. Alexander.—Symposium: “Is Art a Form of Expression or of Apprehension?” Mr. John Macmurray, Mr. C. E. M. Joad, Mr. A. H. Hannay. Discussion: Prof. A. L. Reid, Prof. H. Wildon Carr.

IN MEMORIAM: JAMES WARD (1843-1925).

By G. DAWES HICKS.

THE loss of F. H. Bradley and James Ward, the two most distinguished English philosophers of our time, has cast a shadow over the forty-sixth session of the Aristotelian Society. There have been other grievous losses, especially that of Dr. McTaggart, but Bradley and Ward occupied by common consent the foremost place in contemporary British philosophy ; and every member of our Society must be conscious of the tremendous blank which their passing away has occasioned. Each of them worked out in detail a metaphysical system that marks a distinct phase in the history of philosophical investigation, and much of our discussion in recent years has centred round the problems which had thus been raised.

James Ward died at his home in Cambridge on March 4th, little more than a month after he had reached his eighty-second birthday. Up till a few days before the end, he had lectured as usual ; and the January number of *Mind* contains a long paper from his pen on "Bradley's Doctrine of Experience," while to the January number of the *Hibbert Journal* he also contributed an article on "The Christian Ideas of Faith and Eternal Life." His was, indeed, a remarkable old age. In point of fact he never did grow old, but retained to the last all a young man's interest in current intellectual and political questions. On his regular afternoon walk along the Barton Road, or towards Grantchester, or in the direction of Girton, he would discuss with his friends the newest discovery in science or the latest philosophical theory with the eagerness and zest of a man who was entering upon, rather than nearing the close of, a career. Who of us who knew and honored him can ever forget that

striking and beautiful face, so expressive of intellectual depth and spiritual reflexion, the bright, piercing gaze, the tall erect figure, in the presence of which it was impossible not to feel the inspiration that proceeds from a great and unique personality ?

Over fifty years of his life James Ward spent in Cambridge ; and it may, I think, be truly said of him that he was a characteristically Cambridge man. He possessed to the full that respect for empirical fact, for patient and methodical research, and that distrust of sweeping, ill-founded generalizations, which a Cambridge training engenders ; and in the smallest bit of work he undertook a like thoroughness was displayed. I recall, for example, the extraordinary amount of labour he devoted to the preparation of his last book, *A Study of Kant*, published in 1922. He made himself familiar with everything of importance in the enormous Kantian literature, and for months he and I were debating on our weekly walks together minute points of Kantian exegesis. Never, I should imagine, was a work on the critical philosophy produced as a result of more careful attention to matters of detail, or a more scrupulous resolve to interpret Kant's thought correctly. James Ward's first appearance in print was during his undergraduate days at Trinity College, Cambridge, when he entered into a controversy in the columns of *Nature* (Vol. ix, 1874, pp. 280, 381, and 440) with Alfred Russel Wallace on the question as to how a bird's wing moves in flight. After having been placed alone in the first class in the Moral Sciences Tripos of 1875, he wrote a dissertation on *The Relation of Physiology to Psychology* which secured for him a Fellowship at Trinity, and he was enabled to spend a year in Leipzig, working at physiology under Ludwig. On returning to Cambridge, he conducted an elaborate piece of research in the Physiological Laboratory on the nervous system of the crayfish, the results of which were communicated to the Royal Society in 1879, and to which Huxley referred in his well-known treatise on *The Crayfish* (1880). Already, however,

in 1878, Ward had begun to lecture in Cambridge on psychology ; his celebrated article on Psychology for the ninth edition of the *Encyclopædia Britannica* was completed in 1885 and published in 1886. Probably no article in the *Encyclopædia Britannica* has ever occupied quite the position in the history of a science that this one occupies in the history of psychology. It signalized a complete rupture with the school of which Bain was then the chief representative, and it laid the foundation of the best psychological work that has been done in England during the last quarter of a century. It was not until thirty years later that the *Encyclopædia* article was expanded into the volume entitled *Psychological Principles* (1918), which is beyond all question the greatest and most original work on the science in the English language. After Dr. Ward was appointed, in 1897, to the Chair of Mental Philosophy and Logic in Cambridge, he naturally devoted himself more and more to epistemological and metaphysical questions : and in two series of Gifford Lectures, the one on *Naturalism and Agnosticism* published in 1897 and the other on *The Realm of Ends* published in 1911, he first of all undertook a searching examination of the materialistic and dualistic systems prevalent in this country during the last quarter of the nineteenth century, and then propounded a constructive theory of the nature of reality—a theory which he liked to designate by the title of ‘spiritualistic monism.’ The latter was, in fact, a theory of monadism, differing, however, from that of Leibniz, inasmuch as the doctrine of pre-established harmony was entirely discarded, and the monads were conceived as essentially interacting entities.

I must not, however, attempt here to delineate, even in the briefest fashion, Prof. Ward’s philosophical position, nor his many contributions to philosophical research. But it may be permissible to call attention to one feature of his writings which gives to them a peculiar charm. His wide knowledge of physical

science, especially of biology, and of natural history in the old sense of the term, enabled him repeatedly to lighten an abstruse argument by illustrations that were strikingly appropriate and suggestive. What could be happier, for instance, than the way in which he described the effects of subjective selection,—“the twilight that sends the hens to roost sets the fox to prowl, and the lion’s roar which gathers the jackals scatters the sheep” ? Or his delightful remark, in enforcing his view that intersubjective intercourse is to be found early in the scale of organic evolution,—“we may be quite sure that his faithful dog is as little of a solipsist as the noble savage whom he accompanies” ? Or, once more, the manner in which he exhibited the “primitive credulity” or trustfulness that in the development of intelligence precedes knowledge,—“before a bird had cleaved the air there was surely little, in all that the most daring of saurian speculators could see or surmise concerning that untrodden element, to warrant him in risking his neck in order to satisfy his longing to soar ; although, when he did try, his forelimbs were transformed to wings at length and his dim prevision of a bird became incarnate in himself” ?

Prof. Ward was President of the Aristotelian Society for the session 1919-20, and his was the last Presidential Address that was delivered in the rooms at 22, Albemarle Street. No one who heard it is likely to forget the wonderful vivacity with which it was given or the alertness with which the points that had been discussed in the debate were taken up in the reply. The Address is a particularly valuable one ; it is a defence of the method of starting in philosophy from the position which we actually occupy rather than from the standpoint which only a completed philosophy would occupy, and it contains some acute criticism of Bradley’s conception of the Absolute. On each of the occasions when the Society held special meetings in Cambridge, Prof. Ward contributed papers. He took part in the symposium on “The Nature of Mental Activity” on June 12th, 1908 ; in

that on "Purpose and Mechanism" on June 1st, 1912; and in that on whether "The Materials of Sense" are "Affections of the Mind" on June 10th, 1917. A large part of the pleasure derived from those Cambridge gatherings was due to the fact of his participation in them.

As the outcome of years of strenuous intellectual labour, Dr. Ward had reached strong and clear convictions, and was always ready to maintain his point of view when the occasion offered. His genuine love of truth and sincerity of purpose were conspicuous in all he said and in all he wrote. No one could have been more conscious than he was of the difficulties that beset the path of metaphysical inquiry, and he never claimed for his conclusions a certainty which he knew they could not possess. In regard to the deeper interests of human life he was, indeed, prepared to trust where he could not see, yet stipulating that religious faith should be the faith of reason and not of mere credulity. He was tolerant towards, and appreciative of, views that differed from his own, provided they had been formed by honest thought and careful investigation; he was impatient only of superficial work and unfounded dogmatism. He loved the society of young people; and his pupils recall many happy hours spent with him in his beautiful home and in the midst of his family. His wide culture, his soundness of judgment, his downrightness, won their esteem and admiration; while there was in him a fineness of sympathy and tenderness that won their affection. In short, he was not only a great philosopher, he was a great man,—great in all the traits that go to constitute a strong spiritual personality.



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1919. N. ISAACS, 53, Hunter Street, Brunswick Square, W.C. 1.
1911. Principal L. P. JACKS, M.A., LL.D., D.D., Shotover Edge, Headington, Oxford.
1923. E. F. JACOB, M.A., 54, South Eaton Place, S.W. 1.
1921. Prof. G. B. JEFFERY, M.A., D.Sc., Balmagall, Potter Street, Pinner.
1904. Prof. F. B. JEVONS, M.A., D.Litt., Hatfield College, Durham.
1915. C. E. M. JOAD, B.A., 131, Cheyne Walk, S.W. 10.
1918. C. B. JOHNSON, M.A., 2, King's Bench Walk, E.C. 4.
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1919. Prof. JAMES JOHNSTONE, D.Sc., The University, Liverpool.
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1920. R. F. JOHNSTONE, The Forbidden City, Peking.
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1925. M. KAYE, M.A., University College, Exeter.
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 1912. J. N. KEYNES, D.Sc., 6, Harvey Road, Cambridge.
 1923. Rev. F. W. KINGSTON, M.A., Willington Vicarage, Bedfordshire.
 1923. MALCOLM KNOX, M.A., 865, Finchley Road, N.W. 11.
 1922. B. M. LAING, M.A., The University, Sheffield.
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 1911. Prof. GEO. H. LANGLEY, M.A., Dacca, Bengal, India.
 1898. Prof. ROBERT LATTA, M.A., D.Phil., The University, Glasgow.
 1921. JOHN ARTHUR LAW, 29, Southampton Buildings, W.C. 2.
 1919. S. C. LAZARUS, B.A., The University, Melbourne, Australia.
 1918. Captain A. E. I. LEGGE, The Athenæum, Pall Mall, S.W. 1.
 1921. P. LEON, B.A., University College, Leicester.
 1924. Miss M. J. LEVETT, M.A., 12, Victoria Crescent, Glasgow, W.
 1923. ISRAEL LEVINE, M.A., D.Litt., University College, Exeter.
 1908. A. D. LINDSAY, M.A., LL.D., *Vice-President*, Master of Balliol, Oxford.
 1924. Prof. J. LOEWENBERG, University of California, Berkeley, California, U.S.A.
 1920. Rev. A. A. LUCE, D.D., Ryslaw, Bushy Park Road, Dublin.
 1921. Miss JULIA LYON, B.Sc., 18, Mecklenburgh Square, W.C. 1.
 1924. Prof. A. MACBEATH, Woodend, Glenlyn, Aberfeld.
 1924. Prof. G. H. R. MACCALLUM, B.A., Queen's University, Kingston Ontario.
 1916. C. A. MACE, M.A., 11, Netherhall Gardens, N.W. 3.
 1915. Mrs. C. A. MACE, M.A., 11, Netherhall Gardens, N.W. 3.
 1925. IVY MACKENZIE, M.A., B.Sc., M.D., 10, Woodside Terrace, Glasgow.
 1916. Prof. J. S. MACKENZIE, Litt.D., 56, Bassett Road, North Kensington, S.W. 10.
 1910. Sir W. LESLIE MACKENZIE, M.A., M.D., 14, Belgrave Place, Edinburgh.
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 1919. Miss JESSIE A. MALLETT, 29, Launceston Place, W. 8.
 1922. W. H. O'N. MANNING, M.A., Trinity College, Cambridge.
 1916. Rev. W. R. MATTHEWS, M.A., D.D., King's College, Strand, W.C. 2.
 1924. F. J. MCCULLOCH, B.A., Firecroft, Bournville, Birmingham.
 1918. WM. MONTGOMERY MCGOVERN, Ph.D., School of Oriental Studies, Finbury Circus, E.C. 2.
 1899. J. LEWIS MCINTYRE, D.Sc., Abbotsville, Cults, N.B.
 1921. J. C. MCKERROW, 34, Cartwright Gardens, W.C. 1.
 1914. G. R. S. MEAD, B.A., 27, Clareville Grove, S.W. 7.
 1920. E. MILLER, M.A., 33, Oxford Mansions, Oxford Circus, W. 1.
 1889. R. E. MITCHESON, M.A., Les Iris, Roquebrune, Alpes Maritimes, France.
 1921. Prof. WALTER H. MOBERLY, M.A., The University, Exeter.
 1923. Miss G. V. MOFFAT, B.A., Latymer School, Edmonton.

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 1919. Rev. WILFRED MOOR, B.A., Ph.D., Piazza Minerva 74, Rome (19).
 1896. Prof. G. E. MOORE, Sc.D., LL.D., *Vice-President*, 86, Chesterton Road, Cambridge.
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 1910. Prof. C. LLOYD MORGAN, LL.D., 5, Victoria Square, Clifton, Bristol.
 1923. C. R. MORRIS, M.A., Balliol College, Oxford.
 1924. Prof. DAVID MORRISON, M.A., 23, South Street, St. Andrews.

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 1904. Prof. T. PERCY NUNN, M.A., D.Sc., *Vice-President*, London Day Training College, Southampton Row, W.C. 1.

 1908. Miss HILDA D. OAKELEY, M.A., 27, Gordon Square, W.C. 1.

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 1921. Rev. RICHARD PHILLIPS, M.A., D.Ph., D.D., St. John's Seminary, Womersley, Guildford.
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 1922. HANS PRESSBURGER, Ph.D., University College, W.C. 1.
 1924. H. H. PRICE, B.A., B.Sc., Trinity College, Oxford.
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 1916. Miss M. PUNNETT, B.A., *Librarian*, London Day Training College, Southampton Row, W.C. 1.

 1922. M. B. RAY, M.D., 11, Seymour Street, W. 1.
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 1918. C. A. RICHARDSON, M.A., Willow House, Whalley, Blackburn.
 1925. W. A. RICHARDSON, B.A., University College, Nottingham.

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 1912. SATIS CHANDRA ROY, B.A., P.O. Ramna, Dacca, Bengal.
 1896. Hon. BERTRAND RUSSELL, M.A., *Vice-President*, 31, Sydney Street, S.W. 3.
 1921. E. S. RUSSELL, M.A., D.Sc., Fisheries Laboratory, Lowestoft.
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 1921. Miss ELIZABETH SCOTT, M.A., The University, Birmingham.
 1918. W. E. G. SEKYE, M.A., Anibek Chambers, Cape Coast, Gold Coast, West Africa.
 1925. Dr. NARENDRA NATH SENGUPTA, M.A., Ph.D., University of Calcutta.
 1892. ALEXANDER F. SHAND, M.A., 1, Edwardes Place, Kensington, W. 8.
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 1901. A. T. SHEARMAN, M.A., D.Lit., Bellevue Road, W. Cowes, I. of Wight.
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 1924. Mrs. SINGER, 5, North Grove, Highgate Village, N. 6.
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1887. Prof. G. F. STOUT, M.A., LL.D., *Vice-President*, Craigard, St. Andrews, Scotland.
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1908. Prof. A. E. TAYLOR, M.A., D.Lit., 9, Dempster Terrace, St. Andrews, N.B.
1915. F. W. THOMAS, M.A., Ph.D., *Treasurer*, 6, Granville Road, Sevenoaks.
1917. J. M. THORBURN, University College, Cardiff.
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1920. Rev. LESLIE J. WALKER, S.J., M.A., Campion Hill, Oxford.
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1890. Prof. CLEMENT C. J. WEBB, M.A., Walnut Tree House, Marston, Oxford.
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1922. Miss E. HELEN WEIL, B.A., 174, Goldhurst Terrace, N.W. 5.
1896. Prof. R. M. WENLEY, D.Phil., LL.D., American University Union, 20, Russell Square, W.C. 1.
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1907. Mrs. JESSIE WHITE, D.Sc., 93, Gt. Russell Street, W.C. 1.
1915. Prof. A. N. WHITEHEAD, D.Sc., LL.D., *Vice-President*, Harvard University, Boston, U.S.A.
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1900. Prof. A. WOLF, M.A., D.Lit., School of Economics, Houghton Street, W.C. 2.
1919. Rev. A. WOOD, D.D., St. Ann's Lodge, Orpington, Kent.
1920. Miss CHARLOTTE WOODS, Graythorpe, Kingswood, Surrey.
1918. Miss E. M. WORTHINGTON, 31, Gledhow Gardens, S.W. 5.
1917. Mrs. DOROTHY WHINCH-NICHOLSON, M.A., D.Sc., 60, Lake Street, Abingdon Road, Oxford.
1910. Sir FRANCIS YORNGHUSBAND, K.C.S.I., K.C.I.R., Litt.D., Currant Hill Westerham, Kent.

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